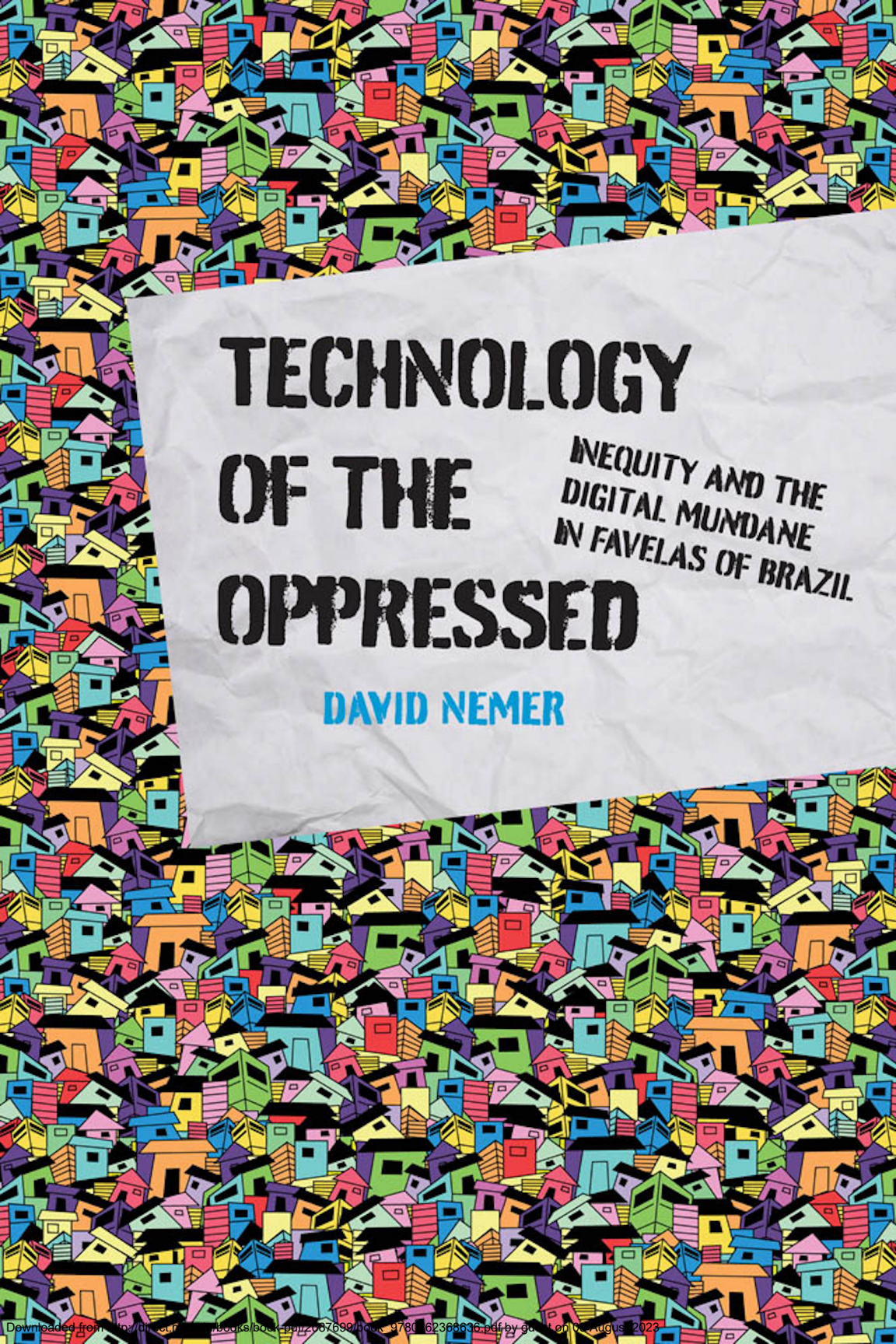


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# TECHNOLOGY OF THE OPPRESSED

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# TECHNOLOGY OF THE OPPRESSED

## INEQUITY AND THE DIGITAL MUNDANE IN FAVELAS OF BRAZIL

DAVID NEMER

The MIT Press
Cambridge, Massachusetts
London, England

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*To Maria*

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# 1

# INTRODUCTION

Pedro quietly arrived at Games LAN House (similar to an internet café) this morning wearing casual clothes and went straight to his usual desk. He whistled at Ronald—the owner—and pointed at the computer. Ronald released the screen lock, and Pedro started typing a document on a cracked copy of Word. I pulled up a chair and sat next to him. Before I could start a conversation, he objected, saying, "I can't talk right now. I have to finish this and don't have the money to pay for more than thirty minutes on the computer." I looked over at the screen and saw that he was tentatively typing out a CV. He mumbled that he hated technology—which didn't help his hunting and pecking on the keyboard. Leaving him alone, I noticed he had typed a half page listing his skills and experiences: "Basic Computer Skills; Car wash and detailing; Front Desk/Receptionist." After he finished, he whistled at Ronald again and pointed at the printer. Ronald gave him the okay, then retrieved Pedro's freshly printed CV for him. Before I could even speak, Pedro handed me his CV to ask my opinion, saying:

> I lost my job. The owner of the car wash said I arrived late way too many times—but how is it my fault? Yesterday, you saw what happened; the shootout didn't let us get out of our houses before 10:00 a.m. Last week, I had to go to the Citizen House (Casa do Cidadão) to try to issue my Work Card—you know the Car wash owner wasn't signing it—and two days ago I had to run to the hospital to get stitches because I hurt my finger fixing the holes in my roof, and you know that public hospital; they take forever to help you.

I told Pedro his CV looked good. He was a twenty-five-year-old Black man who had been working for eight months at a car wash. In Brazil, employers are responsible for signing their workers' cards so they can access rights such as unemployment insurance and the employee's dismissal fund. Since Pedro didn't have his work card signed by his employer, the state didn't recognize him as a working citizen, leaving him without social protection or assistance. Although Pedro was the first informant to tell me

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about working in this precarious condition, this is the norm in Brazil. Some 12.6 million favela residents don't have a formal work contract and therefore cannot obtain benefits.[1] Pedro's story illustrates how favela residents are considered by the state to be "differentiated citizens," a concept coined by James Holston (2011) to highlight how universal citizenship—which was supposed to promote equal rights for all—amplified historical inequalities. Rights in Brazil are conferred not only through a constitution but also on the basis of inherited understandings of who is worthy in a given society.

I asked Pedro about his next steps to securing a job. In response, he said, "I'm a *favelado* Black man; I don't get to dictate my life. What is the point of having plans if the system has a different plan for me? I am not allowed to have plans. . . . Things are just prescribed to me and I can only react to them. I don't make plans; *I just survive them*."

Black people, embedded in a system of oppression, have been excluded from decision-making processes that shape their lives. Pedro started thinking aloud about where to go next to find a new job. He considered going to the mall but quickly gave up that idea, stating, "I don't need more people judging me now. The rich people there will probably think I'm there to create trouble." My meeting with the manager of the Telecenter down the road was approaching, so I invited Pedro to come with me. To my surprise, Pedro didn't know about the location. He decided to join since, after talking himself out of going to the mall, he didn't "have anything to lose or do." After we arrived, I introduced Pedro to Vania, the Telecenter's Inclusion Agent, and asked her if she could show him around. I left them alone and went straight to my meeting, since I was a little late. I didn't expect to see Pedro still around when I came out one hour later, since he had already admitted that he hated technology. But there he was, calmly browsing an employment website and talking about creating an account and uploading his CV.

As Vania was getting ready to close the Telecenter, Pedro's curiosity got the best of him. He decided to explore the web. He grabbed me to say, "Look at this Google thing; you can search for anything. Everything is in there—but I doubt that they know about our favelas. Let's see, let's Google Bairro da Penha. Wow, they have stuff about us; they know about us." After five minutes enjoying the happy surprise of his search's results, Pedro recoiled after clicking on images, then fell silent. "They only talk about

1. See Mustafa (2020) for more details on the numbers.

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crimes, drug traffickers, and tragedy. Is this what rich people think we are? The world? David, you know this technology; can you fix it?" Vania looked to me, hoping that I would say yes. But I just stood there shaking my head and searching for a proper answer. I felt that I couldn't disappoint him. When he had found out about applying for jobs online, Pedro went from complete despair over losing his job to elation. I didn't want to quash his optimism. I also thought of telling him that I distrusted Silicon Valley because it profited from acts of oppression. Instead, I kept it short. I said, "No, I can't fix it." Pedro didn't seem to be disappointed by my answer. Instead, he grabbed his CV and stood up. As he was leaving, he looked at Vania with a hopeful smile and said, "Maybe we can."

Pedro was right—maybe they can. But Pedro and every oppressed favela resident occupy an institutional system designed to exploit them. Digital technologies may be perceived as paving a pathway to a better life, but this route is hardly open to everyone.

Scholars and technology designers have often perceived the oppressed as mere consumers of technologies rather than as agents empowered by them (Rangaswamy and Cutrell 2012). This tension between oppression and empowerment turns digital technologies—as with every aspect of the life of the oppressed—into a site of struggle, revealing the structural violence of the information age. Rendering such oppression visible makes it available for intervention and change (Eubanks 2012). After seeing how his neighborhood was framed online, Pedro became more aware of the biases of digital platforms. But in order for people like him to survive, they need to consciously resist oppressions and appropriate technology rather than reject it. Throughout this book, I explore how the oppressed's experiences with digital technologies allow them to get by and even, at times, flourish. The book is concerned with the spirit, love, community, resilience, and resistance of favela residents in their pursuit of freedom. I believe that they can be sources of hope for all of us.

Digital technology scholars interested in the oppressed initially thought of the oppressed body as being legible only through its perceived absence from the material, technical, and institutional aspects of computers and society.[2] They conceptualized power through simplistic notions of the

2. I'm paraphrasing André Brock Jr. in *Distributed Blackness*: "When scholars first sought to understand information technology use by Black folk, the Black body was only legible through its perceived absence: absence from the material, technical, and institutional aspects of computers and society" (2020, 1).

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"digital divide" and "haves and have-nots." These concepts situated technology as being solely capable of rectifying oppression. Worse, they ignored the complex relationships between specific groups and technology in oppressive environments such as in the favelas of Brazil. In response, I joined scholars (see Ames 2019; Medina 2011; Marques 2005; Irani 2019; Chan 2004; Brock Jr. 2020; Eubanks 2018; Noble 2019) who trace how people have rallied against structural forces. Technology is not a separate world—it is an extension of the struggles we all face. Thus, in this book, I explore how people critically appropriate technologies to navigate both digital and nondigital sources of oppression. To guide this exploration, I borrow Paulo Freire's notion of *oppression*, which he defines as acts of exploitation and violence and a failure "to recognize others as persons" (2000, 55). Over the course of the book, I will evolve and mature Freire's rather vague notion of oppression, building a framework around the challenges that favela residents encounter. This framework represents how I understand the role of digital technologies in favelas: Residents grapple with daily challenges from specific axes of oppression in their lives. Appropriating Mundane Technologies is their act of hope; they use technology to seek liberation. Therefore, we need to shift our understanding of the role of technology in oppressive situations.

## MUNDANE TECHNOLOGY: THE TECHNOLOGY OF THE OPPRESSED

It is not a coincidence that the title of this book is reminiscent of Paulo Freire's *Pedagogy of the Oppressed*, which was first written in Portuguese in 1968, then translated and published in English in 1970. His book sold over one million copies, making it arguably the most widely read text on education and development. Like scholars across the globe, I have been influenced by Freire's teachings and inspired by his care for the oppressed. Paulo Freire was a Brazilian educationalist and philosopher whose radical ideas about pedagogy, learning, and knowledge established the critical pedagogy movement. Freire's philosophy came not only from classical approaches stemming from Plato; he was also inspired by existential phenomenologists, modern Marxists, and anti-colonialist thinkers.

In many ways, *Pedagogy of the Oppressed* can also be read as a response to Frantz Fanon's *The Wretched of the Earth* (1968), which emphasizes the need to provide native populations with an education that was modern and

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anti-colonial. Freire argues that education should allow the oppressed to regain their sense of humanity and consequently overcome their condition. However, he recognizes that for this to occur, the oppressed must play a role in their own liberation. Freire highlights the importance of *conscientização*—the process of "learning to perceive social, economic and political contradictions and to take action against the oppressive elements of reality" (P. Freire 2000, 35)—to catalyze transformative actions of the oppressed during their pursuit of freedom.

Many liberal and neoliberal educators have adopted Freire as an alternative to conservative and lethargic pedagogical models that equate free-market ideology with democracy and freedom. However, Ana Maria Araújo Freire and Donaldo Macedo (2001) protest that, over time, pseudocritical educators reduced Freire's teachings to a method, leading his philosophical ideas into a mechanistic world. Freire himself became dissatisfied with how his ideas were approached as a methodology; "I don't want to be imported or exported. It is impossible to export pedagogical practices without reinventing them. . . . Ask [educators] to *re-create and rewrite my ideas*" (A. M. A. Freire and Macedo 2001, 6).

Freire's invitation to others to reinvent his ideas inspired me to develop a framework that seeks to understand why digital technologies can be simultaneously sites of oppression and tools that can be appropriated by the oppressed in their pursuit of freedom. I use the term *Mundane Technology* to describe this framework. It doesn't provide a method or a set of techniques to liberate the oppressed, nor it is a pedagogical plan. Rather, I conceptualize Mundane Technology as an episteme to understand oppression and Freire's process of *conscientização* in the information age. Similar to Virginia Eubanks and her arguments in *Digital Dead End* (2012), I believe that oppression should be the central diagnostic for technology. Using oppression as an outcome of concern allows us to see complex processes of exploitation, marginalization, powerlessness, cultural imperialism, and violence as centrally driving inequities of the information age. Identifying and calling out these systems of domination illuminate opportunities for intervention and change.

To understand oppression, we must comprehend what constitutes the relationship between the oppressed and the oppressor. According to Paulo Freire, one of the fundamental elements is *prescription*—guidelines that impose the consciousness of the prescriber (oppressor) on the consciousness

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of the prescribed (oppressed). In other words, the behavior of the oppressed is defined by the oppressor, a form of control that impedes the oppressed from achieving freedom. *Prescription*, as claimed by Bruno Latour, can also be imposed by nonhuman actants, such as technological artifacts, to dictate human action (Johnson 1988). Thus, in favelas, prescriptions are not only imposed through laws and boundaries but also designed into algorithms and technological affordances of digital technologies, such as the racist bias embedded in Google's search engine (Noble 2019) and algorithmic necropolitics (Richardson 2020). The act of oppression is therefore an inevitable outcome of favela residents' digital experiences. Freire warns that technologies can become powerful instruments in the hands of the oppressor. To him, they maintain "the oppressive order through manipulation and repression. The oppressed, as objects, as 'things,' have no purposes except those their oppressors prescribe for them" (P. Freire 2000, 60). Freire's vague use of the word *oppression* was both a weakness and a strength of his book. It "allowed people from very different backgrounds to read their own experience of (dis)advantage into the text, and to construct their own meaning from it" (Roberts 2016, 70).

I am aware that the categories of oppressed and oppressor can be interpreted as constructing a false dichotomy. Nobody is ever fully oppressed, because people find ways to exercise emancipatory agency despite their limiting social and economic conditions. However, I still use this terminology to discuss the realities of oppression. By recognizing and naming the *oppressed* and *oppressor*, I seek to shed light on people's capacity to fight back against limitations on their humanity. *Prescriptions* operate on many different levels simultaneously, across different oppressed groups. Thus, to ground Freire's ideas in everyday struggles, in this book I show that oppression in favelas takes many forms.

★ ★ ★

Scholarship in Science and Technology Studies (STS) supports the validity of Freire's concept of prescription. In *Autonomous Technology*, Langdon Winner (1978) argues that technological artifacts are the result of human design. They embody specific forms of power and authority that encourage certain attitudes and principles, while discouraging others. He suggests that artifacts have politics that encompass political purposes beyond their immediate use. Often, they are used as tools to reproduce and perpetuate oppression from ruling powers. More recently, in *Algorithms of Oppression*,

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Safiya Noble demonstrates that online search results are far from neutral. Instead, they replicate and reinforce the racist and sexist beliefs of societies where search engines operate. Noble argues that "search does not merely present pages but structures knowledge, and the results retrieved in a commercial search engine create their own particular material reality. Ranking is itself information that also reflects the political, social, and cultural values of the society that search engines operate within" (2019, 148). Similarly, Virginia Eubanks, in *Automating Inequality* (2018), claims that attempts at automation envision the poor as lesser people, and even barely human. The common view among these scholars is that structural inequalities are being embedded in an increasing variety of new digital technologies.

Given an understanding that technology can mask and deepen oppression, the question becomes, How can favela residents use digital technologies in their quest to liberate themselves and regain their humanity? To address this question, in this book I animate stories of humans living in favelas of Gurigica, São Benedito, Itararé, and Bairro da Penha, who creatively and critically appropriate technologies in their journey to find liberation—Mundane Technology.

I did not coin the term Mundane Technology—it has actually been explored by previous scholars interested in understanding the role of technology in everyday life. Paul Dourish et al. (2010) refer to Mundane Technologies as those that are commonplace, which many people use, such as smartphones, texting, email, word-processing applications, and so on. Mike Michael suggests that "the term 'mundane technologies' connotes those technologies whose novelty has worn off; these are technologies which are now fully integrated into, and are an unremarkable part of, everyday life. To study mundane technologies is thus to explore how they mediate and reflect everyday life, how they serve in the reproduction of local techno-social configurations" (2003, 131). Trevor Pinch (2010) and David Edgerton (2011) have called for a move away from innovation-driven studies of technology to studies of the Mundane Technologies because they have become so integral to everyday use that it is often difficult to identify what is anthropologically and sociologically relevant about them. In the same vein, Payal Arora (2019) recommends that, instead of looking for novel technology from Silicon Valley, we focus on technologies that give the poor the right to pursue leisure and self-expression, to explore sexuality, to engage with political opinions in a safer space, and more.

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While I borrow the notion of Mundane Technologies in this book, I expand the term to go beyond digital artifacts to refer to the oppressed's processes of appropriating everyday technologies—technological artifacts, operations, and spaces—to alleviate oppression in their everyday lives. Mundane Technologies encompass nonproductive, quotidian activities and desires that people engage in. They constitute a decolonial framework for understanding how people exercise their agency and consciousness (*conscientização*) and appropriate technologies to mobilize themselves toward a quality of life they desire.

Early research in STS has focused on the production of technology by established professionals or on the impact of technology on the general public (Eglash 2004). However, in this book, I join the scholars mentioned previously and focus on marginalized people as users and producers of Mundane Technologies. As I have defined it, Mundane Technologies are about, in terms developed by Ron Eglash, how people outside the centers of technological and social power use materials and knowledge from professional technoscience for their own kind of sociotechnical production. Such peripheral places are often considered to be unsuitable for studying technology, because they lie outside the main economic, technological, and political centers of the world (Takhteyev 2012). The peripheral location of favelas allows us to learn about place and how technology gains importance in today's society, without assuming that elite users dominate. Thus, Mundane Technologies—as appropriations of everyday technologies—are how technology is reinterpreted, adapted, and reinvented by those outside these centers of power in order to achieve liberation from oppression. Approaching Mundane Technologies as appropriations of technology opens new research avenues for culture and technology and contributes to a renewed concern for democracy.

★ ★ ★

In the field of Information Communication Technology for Development (ICTD), early research has led to the design of technology with a utilitarian focus. These prescriptions about the nature of the technology and the people in the Global South are based on Global North perspectives. Although digital technologies are used for communicative efficiency in much of the Global North, the utility of these same technologies have primarily (and often exclusively) been evaluated in terms of quantifiable socioeconomic

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benefits in Global South communities. Yet, the formal utilitarian and intangible benefits cannot be so easily disentangled. More recently, there has been a turn in ICTD, with a growing literature that is critical of the field's utilitarian approach (see Ames 2019; Gomez and Vannini 2015; Burrell 2012; Kleine 2013; Arora 2019; Nemer 2016a; Stratton and Nemer 2020), and a look toward Mundane Technology assists in this turn to provide opportunities for better understanding its uses and appropriations.

Amartya Sen (2001) acknowledges that economic growth plays an important role in community development. Going further, Sen suggests that assessing "intangible" impacts provides a base for a more holistic understanding of human well-being. In this same rich vein of thought, Paulo Freire claims that it is impossible to have a neutral concept of who and what a person is without considering a moral dimension of humanity—the same way that we cannot have a neutral concept of the role of technology in society. To Freire, morality relates to values such as freedom, happiness, and social well-being. Thus, in this book I incorporate stories of favela residents that chart how they promote civic participation, education, freedom, and safety and alleviate oppression from social and racial inequalities, censorship, tyranny, poverty, and gender discrimination. By focusing on Mundane Technologies, this book also argues that theoretical positions based on technological utilitarianism need to be expanded. Mundane practices observed in the favelas shed light on the importance of technology in many unacknowledged aspects of people's lives. Their practices contribute to a broader and more nuanced comprehension of the engagements and strategies that help shape the daily use of technology by people who often simultaneously suffer the consequences of being oppressed.

In the thirtieth anniversary edition of *Pedagogy of the Oppressed*, Donaldo Macedo states that Freire's "highly literate" critics find his writing style difficult to understand. However, as Macedo questions, "Why is it that a sixteen-year-old boy and a poor, 'semiliterate' woman could so easily understand and connect with the complexity of both Freire and Giroux's language and ideas, and the academics, who should be the most literate, find the language incomprehensible?" (P. Freire 2000, 23). Thus, in this book, I attempt to bring a simple and accessible language, not to those in the favelas, as they are more likely to understand it, but to those academics who are detached and don't identify themselves with the complexity of the favelas.

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## MUNDANE TECHNOLOGY AS AN INTERSECTIONAL APPROACH

Intersectionality has been widely used by academics, activists, policy advocates, and practitioners as an analytical tool to understand experiences that arise from multiple, co-occurring facets of marginalization. Due to the different ways people use and understand intersectionality, I rely on the overarching description provided by Patricia Hill Collins and Sirma Bilge (2020, 2) to explain how Mundane Technology represents an intersectional approach:

> Intersectionality is a way of understanding and analyzing the complexity in the world, in people, and in human experiences. The events and conditions of social and political life and the self can seldom be understood as shaped by one factor. They are generally shaped by many factors in diverse and mutually influencing ways. When it comes to social inequality, people's lives and the organization of power in a given society are better understood as being shaped not by a single axis of social division, be it race or gender or class, but by many axes that work together and influence each other. Intersectionality as an analytic tool gives people better access to the complexity of the world and of themselves.

The favela residents I describe in this book had to grapple with discriminations in their everyday lives. These discriminations created a system of complex injustices and disadvantages that they were forced to navigate. For example, some women were oppressed and preyed on as sexual objects because they were simultaneously poor *and* female *and* black. These categories are not a system of summation of oppressions, but they interact to accentuate, neutralize, or reduce the effect of one category on another; as feminist scholar Carla Akotirene claims, intersectionality is an "interconnected system of oppression" (2019, 14).

Intersectional approaches aim "to give theoretical and methodological instrumentality to the structural inseparability of racism, capitalism and cisheteropatriarchy—producers of identity avenues in which black women are repeatedly affected by the crossing and overlapping of gender, race and class, modern colonial apparatuses" (Akotirene 2019, 13). When using Mundane Technologies, women from favelas had to develop strategies to alleviate forces of oppression that worked together at the intersection of those social categories. In the field of ICTD, approaching technology use through an intersectional approach is relatively new (Schlesinger, Edwards, and Grinter 2017). To chart a path forward, Neha Kumar and Naveena Karusala (2019) propose a mindset called "intersectional computing," which

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shifts the conversation from how we might "better acknowledge and design for intersections" to how we might "approach technology in a way that honors intersections more broadly." Mundane Technology as a framework engages with this mindset, highlighting different oppressions and how they work together when favela residents engage with their everyday technologies. Once oppressions are made visible, we can derive insights into how the oppressed might achieve liberation. In other words, Mundane Technology provides a framework to analyze how the oppressed critically and consciously appropriate their technologies in order to liberate themselves from such intersectional oppression.

Taking an intersectional approach does not mean simply using the word *intersectionality*, nor does it mean "being situated in a familiar genealogy" or "drawing on lists of standard citations." Instead, intersectionality is the "adoption of an intersectional way of thinking about the problem of sameness and difference and its relation to power" (Cho, Crenshaw, and McCall 2013, 795). Thus, an intersectional approach emphasizes what intersectionality does rather than what intersectionality is. Mundane Technology's concern with action provides us with a framework to approach social injustices by understanding how different forces of oppression work together.

## FAVELAS: THE SITE OF OPPRESSION

The oppressed are often referred to as a uniform group, as if all oppressed people have the same difficulties, access, and aspirations in life. Such generalizations are disrespectful to those facing oppression, since they render their unique life struggles and resistance invisible. A homogenous view of oppression is also dangerous, since the perceived uniformity of their challenges sows acceptance for one-size-fits-all policies. Simply put, different groups of people face oppression in unique ways. In this book, I tell the life stories of people who live at a site of oppression known as favelas. In this section, I briefly trace the history of favelas in Brazil and show how they became sites of oppression.

The first favelas emerged in the nineteenth century in Rio de Janeiro, when freed and runaway enslaved Black people established settlements on the hillsides of the city, due to the lack of inclusion policies for them (Custódio 2017). In the late 1890s, impoverished soldiers returning from the Canudos war, in the northeastern state of Bahia, settled on the hillsides

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of Providência in the center of Rio de Janeiro. The hill was later renamed Favella, according to anthropologist Licia do Prado Valladares (2019), for two possible reasons: (1) the steep hill of Providência reminded some of the soldiers of Favella Hill in Bahia during the Canudos war, and (2) the favela plant, which had given its name to Favella Hill in Bahia, was also found in the vegetation of Providência. According to Maurício de Almeida Abreu (1994), it was only in the second decade of the twentieth century that the press began to use the word *favela* as a category to refer to poor settlements of illegal and irregular occupation, usually located on hillsides—no longer exclusively referring to the Favella hill. Favelas spread rapidly in the first half of the twentieth century, when *nordestinos* (people from the northeast) fled recurring droughts and limited rural job opportunities to the fast-growing urban centers in the southeast region. Their ranks swelled the populations of Rio de Janeiro, São Paulo, and Vitória (Custódio 2017). The exact number of favelas varies, but according to the Brazilian census of 2010, there are 6,329 favelas with a combined population of approximately 12 million people occupying 5.12 million residences.[3]

Favelas have become a vital part of Brazilian urban cities that profit from the labor and exploitation of favela residents. However, these same people also struggle for their right to the city. The term "right to the city" was coined by the French philosopher and sociologist Henri Lefebvre as part of his analysis of how "the expansion of existing cities and creation of new ones has continued to support relationships of dependency, domination, exclusion, and exploitation" (2006, 34).

In Brazil, such segregation and exclusion are still maintained by social prejudice and governmental approaches that reinforce the top-down relationship between political and economic elites and the working poor (Custódio 2017). Such approaches are "paternalistic authoritarianism"—a colonial practice that has shaped social relations in Brazil: "the relationship between landlord and vassal was always ambivalent, both oppressive and protective, authoritarian and paternalistic" (Gomez Diaz and Rodriguez Ortiz 2006, 45). In *Favela Media Activism*, Leonardo Custódio claims that a paternalistic authoritarianist relationship materializes when a minority group, proclaiming itself enlightened and superior on the basis of its cultural

3. See the latest census report by Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Geography and Statistics) (IBGE 2013).

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and financial capital, "assumes guiding roles identifying what is good, promoting what is convenient and establishing what is necessary for the rest" (2017, 47). In Brazil, the lighter-skinned and economically well-off middle and upper classes constitute the minority that dominates the economic and political spheres of the country. Brazil inherited from the colonial system a highly stratified society that still persists. One of the ways that Brazil's population is organized is through social classes—A, B, C, D, and E—which are based on monthly household income. Upper classes are A and B, and favela residents are in classes E, D, and lower C, as shown in table 1.1.

Prejudice has been documented since the very beginnings of the hillside residences. In 1900, *Jornal do Brasil* reported that the Favella hill was "infested with vagrants and criminals that are shocking to families." This view was also expressed by a police chief from the same time period: "Even though there are no families in the designated locale, it is impossible to do policing there because in this locale, which is a focal point of deserters, thieves, and common soldiers, there are no streets, the hovels are built of wood and covered with zinc roofs, and there is not a single gas outlet on the entire hill" (Bretas 1997, 75, as quoted in Valladares 2000). Since then, the hills came to be seen as a place for dangerous and marginal people. Obviously, back then, there was no marked influence of drug trafficking, so prejudice had a lot to do with race and the customs of the people facing poverty.

The concentration of violence in favelas has indeed been a serious problem. Yet, this violence primarily comes not from residents but from armed conflicts in disputes for territorial control by drug cartels, militias, and state security forces. The high rates of violence in favelas also relate to patterns of

Table 1.1 Brazil's social classes

| | From | | To | |
|---|---|---|---|---|
| | Brazil | US | Brazil | US |
| Class A | R$11,262.00 | $4,249.81 | — | — |
| Class B | R$8,641.00 | $3,260.75 | R$11,261.00 | $4,249.43 |
| Class C | R$2,005.00 | $756.60 | R$8,640.00 | $3,260.38 |
| Class D | R$1,255.00 | $473.58 | R$2,004.00 | $756.23 |
| Class E | — | — | R$1,254.00 | $473.21 |

Notes: Social classes organized by FGV Center for Social Policy. US$1.00 = BRL R$2.65. Currency from December 31, 2014.

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authoritarian paternalism of the economic and political elites in governance. The history of the police, for example, inherits "an enslaving, clientelist and authoritarian heritage which we can observe in a mere police operation with the different treatment that vary according to the social strata to which the citizen belongs" (Sousa and Morais 2011). For two centuries, local governments have correlated the growth of working poor populations with urban violence. Thus, instead of tackling the consequences of social inequality to improve the living conditions and occupational opportunities of the working poor, solutions to violence have historically emphasized repression and violent surveillance. The upper classes use armed conflict to justify their prejudice against favelas and employ the word *favela* pejoratively. They unfairly associate these neighborhoods with violence, crime, poverty, and lack of order. For those who live in favelas, however, the term brings a valuable sense of shared community (Alves and Evanson 2011).

Resistance to slavery predated the formation of favelas; however, due to the lack of inclusion policies after slavery's abolition in 1888, favelas became a kind of social experiment that brought together oppression, suppression of rights, and violence from the state and organized crime—thus resistance, with both physical and social dimensions, became a strong part of Black people's life in the favelas. Before favelas, runaway enslaved Black laborers formed independent settlements known as *quilombos*. They strengthened community bonds among different tribal groups, preserving symbols and cultural identity and creating grassroots solidarity in survival and collective work (Zaluar 2000). Brazil's 1988 constitution, the current constitution, recognized the right to the territory of communities that descended directly from original *quilombos*. This was the case of São Benedito in Vitória, where several *quilombola* families from São Mateus, a city in northern Espírito Santo, settled. Urban movements also sprang up, inspired by the history of the *quilombos'* resistance. They retained their traditional artistic roots and incorporated contemporary international music and dance trends, as expressed in graffiti, samba, and funk.[4] Urban movements in Brazil are proud

4. The funk genre in Brazil is very different from that in other places. A type of music derived from Miami bass and African-style music, funk became popular in the favelas as a way to show the residents' culture, resistance, and protest. Funk's origin is in the transnationalization of protest and Black culture. At soul dances (like Black Rio and those at the Clube Renascença in Rio de Janeiro), Black people

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of their artistic and music culture and ability to adapt to adverse conditions and keep legacies intact (Alves and Evanson 2011). The connection to cultural roots is also present in Afro-Brazilian religions, such as Candomblé and Umbanda. The martial dance art of *capoeira* was developed by enslaved Black people as a means of breaking the bonds of slavery, both physically and mentally, and it has been officially recognized as an Intangible Cultural Heritage of Humanity by UNESCO.

Favela communities are characterized by a long collaborative history of working together as a people and solving problems in solidarity (Penglase 2009). Perhaps the most visible aspect of this legacy is the *mutirão*, in which people gather to build houses, pave roads, install sewage systems, clean streets, or do any work that is best done collectively. Neighbors help one another solve problems and simultaneously strengthen ties that bind them together and form the spirit that they refer to as community (*comunidade*). This collaborative spirit fills the void left from the paradoxical relation between the excess of state (violence) and the absence of state (lack of infrastructure, health, security, and so on). Even garbage collection must be done by favela residents, organized by the Residents' Association. The favela's concept of community thus expands Gurstein (2007) and Gusfield's (1975) definition of communities as physical spaces where the residents develop mutually supportive relationships. Favelas are communities because, like other communities, residents watch out for each other, work together to address shared problems, and feel a shared sense of belonging with their neighbors.

In Vitória, favela residents often say they are from one community and ask others, "Which community do you live in?" They also feel different from those who live in upper-class neighborhoods. Their strong relationship to the community may be contrasted with the lack of feeling of community in the city's upper-class neighborhoods. One cannot, for

got together and dressed like the characters from *Shaft*, a US TV series with Black protagonists, and projected translations of lyrics of singers like James Brown on the walls. Soul dances were a festive gathering of the nascent contemporary Black movement, under the motto of "Black is beautiful," influenced by civil rights movements in the US and the Black movement of the French colonies (Giacomini 2006a). Funk, then, is a synthesis of many influences from the 1970s and 1980s that has become the preferred form of entertainment for peripheral youth in recent years.

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example, say that one belongs to the community of Praia do Canto, Mata da Praia, or Ilha do Frade. In these places—similar to large modern cities around the world—neighbors do not feel inclined to know one another and have an impoverished sense of what a community is. Favela residents told me that this sense of community is one of the reasons they do not want to leave:

> I think there's a lot on the internet that we can use. We can learn a lot from it and even improve our lives. But better life doesn't mean getting out of the favela. Nobody wants to be away from their friends. . . . Here everyone goes to the streets, talks loud, [and] asks neighbors for sugar. Why would I want to live in a wealthy neighborhood? To stay imprisoned at home? No way! (Olavo, twenty-one years old)

The sense of community in favelas is reinforced by a strong local culture that includes a community-supported samba school (Escola de Samba). The samba schools, founded in connection with communities' preparations for Carnival, run year-round training sessions for children and adults. Community residents participate in annual competitions to choose a theme song—the samba *enredo*. Such events are an enormous source of energy and creativity for designers, seamstresses who make the costumes, sculptors who create the magnificent figures in the different allegorical floats, and writers who compose the story that will be told by the samba schools. It is unlikely that the samba schools would exist without the historical legacy brought by the enslaved Africans. They certainly could not exist without the sense of community and collective work that is expressed in the tradition of *mutirão* (Perlman 2006).

One of the samba schools that represented Gurigica, São Benedito, Itararé, and Bairro da Penha was Pega no Samba (Catch the Samba). Pega no Samba was not just a safe space where favela residents could find some entertainment; it was also a way to materialize their struggle and pain in forms of music and art. Although

> one can say that people in the favelas have been shaped by a history of exclusion, exploitation, and resistance, one should also take note of these astonishing efforts of collective and individual creativity and the tenacious maintenance of community traditions. At their best, the favelas offer the rest of Brazil lessons in community spirit and the strength that comes from joining together with

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> neighbors. They show people working together in a way that overcomes race and regional ties. (Alves and Evanson 2011, 25)

## TERRITORY OF GOOD: GURIGICA, SÃO BENEDITO, ITARARÉ, AND BAIRRO DA PENHA

This book is based on an ethnographic project; the bulk of my fieldwork took place in the neighboring favelas of Bairro da Penha, Gurigica, Itararé, and São Benedito in two phases: phase 1 from June to July 2012, and phase 2 from April to October 2013 (see the appendix for more details on the methodology). These neighborhoods are located in the city of Vitória, the capital of the state of Espírito Santo, Brazil. Along with five other neighborhoods, these favelas belong to a planning area defined as Polygonal 1 by the city hall. The residents, a population of near thirty-one thousand, have branded the area as Territory of Good (Território do Bem). It is located on the center-west side of Vitória, comprising the São Benedito hill and Jaburú hill. On a map it lies between the avenues Marechal Campos, Maruípe, Vitória, and Leitão da Silva, as shown in figure 1.1.

The occupation of this territory began in the late 1920s, in the lower parts, and intensified around 1960, in the upper parts, with migrants coming from the interior of Espírito Santo and from other states—expelled from the fields by the coffee crisis and attracted by the recent industrialization of Vitória and its surroundings. In 1945, the first houses were built on the Jaburú hill, but it wasn't until 1954 that the first settlers effectively occupied the area. This period marks the time when the city urbanized the old mangroves where Leitão da Silva Ave. is currently located. The expansion of the earthworks and the advancement of urbanization in Vitória evicted the poor population from their homes. They were forced to relocate to uninhabited areas, such as areas of the Baixada da Égua Farm and Maruípe Farm—currently Territory of Good. In the 1960s, the area was occupied by migrants from rural areas, including *quilombolas* from Sapê do Norte and the states of Minas Gerais and Bahia (Salomão 2006). They arrived in Vitória hoping for a better life and better working conditions. The first occupations took place in the lowlands (the bottom of the hills) due to ease of access and proximity to the city center. As people were relocating to the region, the lowlands quickly became crowded, making it hard

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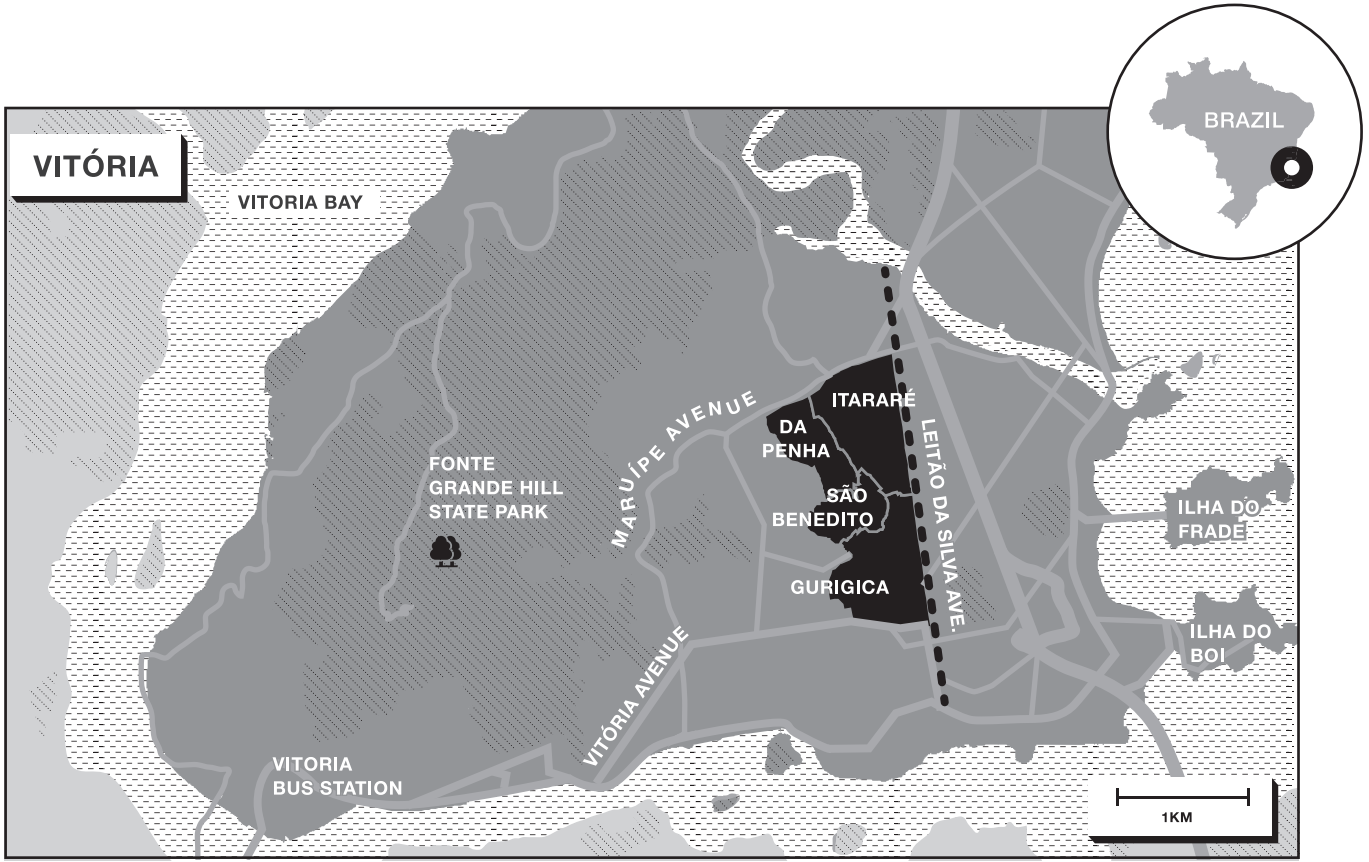


Figure 1.1
Vitória, with the author's fieldwork area in black.

to find an empty piece of land. The new arrivals settled in the upper areas of the hill where most of the lands were unoccupied (Programa Terra 1999).

According to Francisco, a charismatic eighty-year-old and longtime resident of Territory of Good, the Helal family owned the Baixada da Égua Farm and the Monjardim family owned Maruípe Farm. Both families lived on-site in the 1940s and 1950s and tried to prevent the occupation of their lands. The owners appealed to police intervention, which brutally responded to prevent occupation. There were seven intrusion attempts by new arrivals between 1945 and 1954, and the first six failed due to police intervention. Most occupations were undertaken suddenly by families who had no place to live. At the time, the occupation leader was Arcendino Fagundes de Aguiar, known as Sergeant Carioca, a retired military man from Rio de Janeiro who planned the strategies. The occupation also had the support of Colonel Hélio, who encouraged people to live at the top of the Jaburú hill. For many years the water from the well on the property of Colonel Hélio was the main source of supply for local residents. Hélio was also the founder of the local samba school Pega no Samba (Biscotto and Dantas 2019).

The occupiers used night raids to divert the police actions. During the day, residents acted as lookouts, blocked the police's arrival, and organized protests. They tried to occupy as many public spaces as possible, including roads of access. The occupiers built the first streets and alleys with machetes and hoes. At the beginning of the occupation, there were no stairs or ramps on the hill. Due to the constant conflicts and the successful occupation of 1954, the government of Espírito Santo intervened by acquiring the land. There was no evidence of the conditions and negotiations between the government and the Helal family regarding the transfer of the Baixada da Égua Farm. Some of the area in which Territory of Good is located belonged to Fazenda Maruípe, owned by the Monjardim family, who donated that area to the Federal University of Espírito Santo, who later donated it to the city of Vitória.

In 1964, Mayor Sólon Borges divided the lands into neighborhoods, which were no longer used as farms. In 2003, the municipal Law 6077 finally regulated the neighborhoods' titles, making Gurigica, São Benedito, Itararé, and Bairro da Penha their official names. Although the residents were content about having an official neighborhood, some of them did not agree on how the neighborhoods were demarcated. Gil (forty-three years old) told me how confusing this disagreement made his life. "Right on that

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street sign, it says that I live in Jaburú, but I can tell you that I don't! I live in Gurigica, I grew up in Gurigica, and all of my family and friends live in Gurigica. Someone in the city government, that didn't know anything about this place and us, came up with these ways of dividing our neighborhoods." Other local residents also did not identify themselves with the official neighborhoods. Instead, they chose their neighborhood according to their history of relationships. Such misunderstandings motivated the residents to come up with the concept of Territory of Good. These two ways to define the neighborhoods—by government and by locals—caused bureaucratic headaches for the residents.

The city government did not account for the local cultural context of the communities when officially recognizing their boundaries. Such lack of state interest was just the start of the troubled life of the favelas. According to the 2010 census, the latest one at the time of my fieldwork, Territory of Good had a population of nearly thirty-one thousand residents—and according to Denise Biscotto (2008), over 84 percent of households earned less than R$1,245 each month (approximately US$300, which is worth three monthly salaries or less). The area also had a low education rate: 6 percent of the people were considered illiterate, 49 percent had not finished middle school, and 11 percent had not earned their high school degrees. Such statistics reflected the low number of public schools available and the poor education they delivered. The area also suffered the high unemployment rate of 15 percent, and only 17.5 percent of the employed residents had their work cards signed (Biscotto 2008).

The number of informal businesses exceeded the number of formal ones, which could explain the low formal employment statistics. Many families depended on informal jobs for their livelihoods, which insulated them from the precariousness of the formal job market. Informal activities ranged from housekeeping, bricklaying, painting, hairdressing, and working as craftsmen, manicurists and pedicurists, and LAN House owners.

Favelas also suffered from poor-quality services delivered by the state. The residents mentioned that, among all state services delivered to favelas, they were most concerned with safety. Due to the state's absence in the favelas, non-state armed groups emerged, controlling drug dealing and using violence to enforce contracts and maintain power. Since the residents settled at the bottom and middle parts of the hill, the drug traffickers found the perfect location for their base at the upper half of the hill. Their

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buildings worked as watchtowers from which they could see cops or rival gangs coming up the hill. They maintained order in the favelas by enforcing their own laws and making treaties with other gangs, which defined what cartel would be responsible for which territory. The residents respected the drug traffickers not only because they feared retaliation but also because they created an environment where critical segments of the local population felt safe, despite perpetuating high levels of violence. Drug traffickers also tried to please the local population so they would not protest and call the attention of the media, police, and government, which could compromise their drug trafficking (Nemer 2013b). Such an agreement system is described by Luke Dowdney (2003) as "forced reciprocity," in which traffickers maintain some semblance of law and order in exchange for residents' silence about their criminal activities (Larkins 2015).

The most famous favelas in Brazil—such as Rocinha and Cidade de Deus (City of God)—are in the city of Rio de Janeiro. In order to prove the city could be a peaceful venue for the World Cup in 2014 and the Olympic Games in 2016, the government deployed pacification operations that aimed to occupy Rio's favelas with military units and clear drug gangs from them. Many of the drug traffickers who escaped attempted to hide inside favelas in nearby cities such as Vitória (Val 2012). Their presence in Territory of Good turned the favelas into a war zone. At the time of my fieldwork, the drug traffickers from Rio de Janeiro teamed up with a rival cartel from Bairro da Penha and were trying to take over Gurigica and São Benedito's territory.

Some residents considered Hermínio Blackman Ave.—which divided the neighborhoods—the Gaza Strip due to its constant conflicts and shootings. The drug war also further confused the location of neighborhoods, since the constant battles defined new unofficial boundaries. Although most of the locals were not associated with the cartel, if one belonged to a given territory ruled by a certain drug trafficker, she or he may not be welcome in other territories of the favela. This made it hard for the residents to know where they could travel.

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## RACE DIVIDE: THE OTHER SIDE OF THE AVENUE

There is a strong popular belief in Brazil that the country has a problem only with socioeconomics.[5] In other words, the real inequality in the country is related to class and not race. Maria Nilza da Silva (2000) describes this pseudo-characteristic of the population as strongly defended by Brazilian scholars, such as Gilberto Freyre (1963) and Thales de Azevedo (1966), who preferred to simply acknowledge the presence of people of color—theoretically excluding the racial issue, thus denying the existence of racism in Brazil. While academia was critical of the idea of racial democracy,[6] the popular understanding of Brazilian society based on class and not on racial relations was cultivated as Brazil's national discourse of racial democracy. It effectively eliminated language that might describe the racial inequalities that affected Black Brazilian people's lives (Collins and Bilge 2020). This erasure of Blackness as an analytical and political category allowed discriminatory practices to take place against Black and Brown people in areas such as education and employment. There were neither officially recognized terms for describing racial discrimination nor official remedies for it (Twine 1998).

The racial issue in Brazil has been gradually revealed, although there is still resistance to the recognition of its importance (M. N. da Silva 2000). The scholar Silvio Almeida (2019) has been particularly concerned with untangling the dominant national myth of "class and not race." In *O Que É Racismo Estrutural?* (What is structural racism?), he points out that racism promotes and justifies immense economic inequality. This is why any action

5. This section is also based on the report written by Bourguignon (2014).

6. In Brazil, three paradigms are distinguished in the study of racial relations during the twentieth century.

> The first one, the paradigm of *morenidade* [and racial democracy], is associated with Gilberto Freyre. . . . The second paradigm is associated with Florestan Fernandes, who stresses the merely residual character of race prejudice and racial inequality in Brazil. The third paradigm, due to Carlos Hasenbalg, posits persistent racial discrimination as the cause of the inequality between whites and non-whites in levels of economic, educational and other attainment. The differences between these paradigms, and even between authors whose conclusions belong in the same paradigm, are largely due to their underlying models of historical development. (Motta 2000, 665)

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to combat racism that does not take class into account will not be effective. In Vitória, the favelas materialize the connection between race and socioeconomics, as I show in figure 1.2. Using city mapping and IBGE's 2010 census data, I mapped the residents of the seventy nine neighborhoods of Vitória according to their income and race. The dotted line, Leitão da Silva Ave., divides the city. On one side lie the neighborhoods with a predominantly White population and high income. On the other side are the neighborhoods where the majority of lower-income Black and Brown people live. Inequalities by race and income are mutually reinforcing and cannot be considered separately. Therefore, to address perpetuating systems of inequities, we should promote liberation from intersecting oppressions of race and class, as well as gender (Collins 1998).

As Natalia Bourguignon (2014) reports, Jairo, a twenty-six-year-old Black man, lived in Territory of Good since he migrated from a small town in the state of Bahia at age seven with his parents. Thalison (also twenty-six years old) was born in Itararé and was the son of a stay-at-home mom and a locksmith father. Jairo and Thalison both lived in western Vitória—on "the other side" of Leitão da Silva Ave. The region divided by the avenue ran from Nova Palestina (New Palestine) to Ilha do Príncipe (Prince Island) and included Territory of Good. The whole region had a population of about 177,000 people, mostly Black and Brown (Bourguignon 2014). But Thalison described how this macro picture was quite different from his vantage point on the ground. "If you walk around in Praia do Canto and Jardim da Penha [wealthy neighborhoods], you will think that Vitória is a White town. But this reality changes completely, if you cross the avenue, in the neighborhoods of Maruípe and São Pedro, for example." Tereza (thirty-two years old) added: "You can see that the difference is not just socioeconomic, but also racial. Unfortunately, this division is explicit even in public spaces that should be open for everyone to use, such as squares, parks, and beaches."

According to another resident, Neiriele, the urban mobility plan helped to enforce these two sides of the city. "In Ilha do Boi, a rich neighborhood, there is just one bus line that went through the area, and the residents have already asked the city to remove it. The same thing happened in Ilha do Frade. The residents do not want outsiders there, because they don't want these Blacks circulating in their space. It's surreal." Thalison and Neiriele's words "reality changes completely" and "surreal" may have

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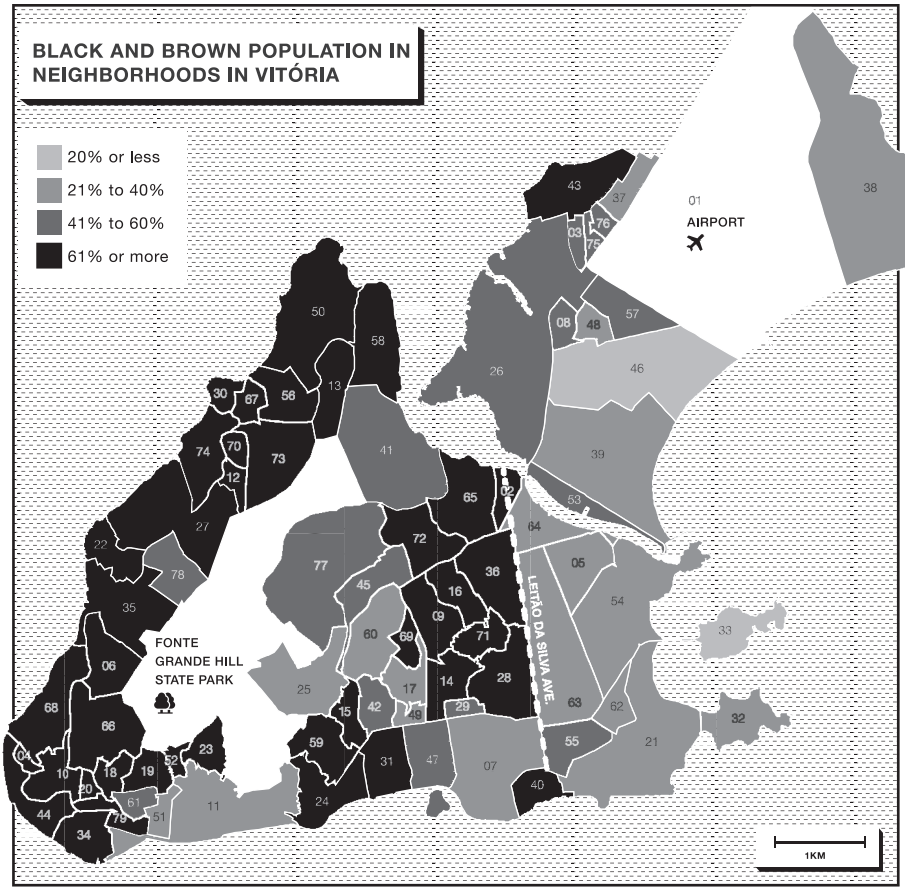


**NEIGHBORHOODS**

01 - Aeroporto
02 - Andorinhas
03 - Antônio Honório
04 - Ariovaldo Favalessa
05 - Barro Vermelho
06 - Bela Vista
07 - Bento Ferreira
08 - Boa Vista
09 - Bonfim
10 - Caratoíra
11 - Centro
12 - Comdusa
13 - Conquista
14 - Consolação
15 - Cruzamento
16 - Da Penha
17 - De Lourdes
18 - Do Cabral
19 - Do Moscoso
20 - Do Quadro
21 - Enseada do Suá
22 - Estrelinha
23 - Fonte Grande
24 - Forte São João
25 - Fradinhos
26 - Goiabeiras
27 - Grande Vitória
28 - Gurigica
29 - Horto
30 - Ilha das Caieiras
31 - Ilha de Santa Maria
32 - Ilha do Boi
33 - Ilha do Frade
34 - Ilha do Príncipe
35 - Inhanguetá
36 - Itararé
37 - Jabour
38 - Jardim Camburi
39 - Jardim da Penha
40 - Jesus de Nazareth
41 - Joana D'Arc
42 - Jucutuquara
43 - Maria Ortiz
44 - Mário Cypreste
45 - Maruípe
46 - Mata da Praia
47 - Monte Belo
48 - Morada de Camburi
49 - Nazareth
50 - Nova Palestina
51 - Parque Moscoso
52 - Piedade
53 - Pontal de Camburi
54 - Praia do Canto
55 - Praia do Suá
56 - Redenção
57 - República
58 - Resistência

Figure 1.2
Average household incomes and percentages of the Black and Brown population in Vitória by neighborhood.

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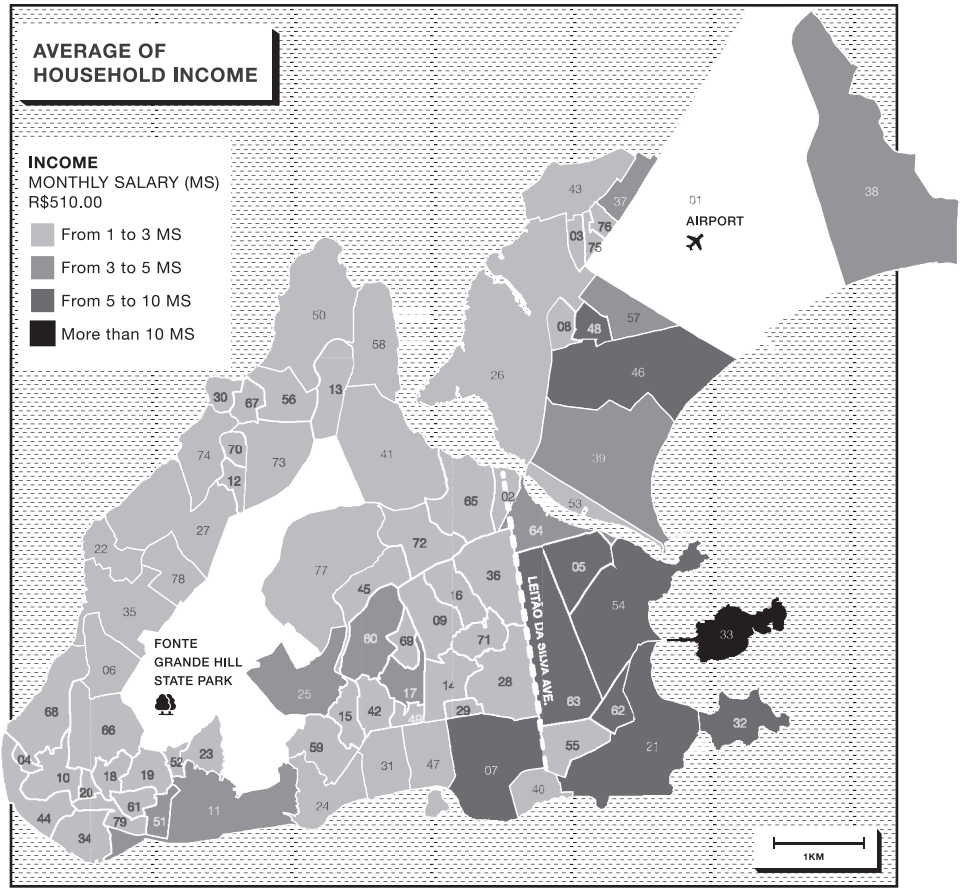


59 - Romão
60 - Santa Cecília
61 - Santa Clara
62 - Santa Helena
63 - Santa Lúcia
64 - Santa Luíza
65 - Santa Marta
66 - Santa Tereza
67 - Santo André
68 - Santo Antônio
69 - Santos Dumont
70 - Santos Reis
71 - São Benedito
72 - São Cristovão
73 - São José
74 - São Pedro
75 - Segurança do Lar
76 - Solon Borges
77 - Tabuazeiro
78 - Universitário
79 - Vila Rubim

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indicated that these divides can be explained by the history of the area, but they still seemed strange and troubling to the population. As I explained earlier, the ethnic-racial configuration of Vitória did not happen by chance. Jairo agreed that the positionality of the Black population in the city was a historical consequence rather than a coincidence.[7] "From the times of slavery and until very recently, the Black population was considered fugitive, and not welcome in white neighborhoods. It's almost like a war strategy to live hiding in high places like the favelas on hillsides."

From the top of the hills and the edge of the swamp, the residents of the poorest neighborhoods in Vitória had privileged views of the city. However, the hard life of those who lived on the other side left little time for them to contemplate the spectacle (Bourguignon 2014). Neiriele said, "We read and hear so much about the violence that we forget that honest people are the majority there. And these people who wake up at five o'clock in the morning to catch the bus and come home late, do not have time, nor energy to think about their own situation and what to do to effectively try to change it." She did not blame White people or those who lived in wealthier neighborhoods for the problem of the suburbs.[8] Rather, she saw that "everyone is inserted into this perverse logic, which is not fair for anyone."

The situation Jairo and Thalison observed in Vitória resembled Alves and Evanson's (2011) findings in the favelas of Rio de Janeiro. Many favelas there were under stress produced by criminal groups and the police, which had people calling favelas the twenty-first-century *senzalas*. *Senzala*—an African word that entered Brazil in the sixteenth century—describes the huts and dormitory spaces for enslaved laborers living under the domination of the *casa grande* (big plantation house). Enslaved laborers only left the *senzala* to work in places such as sugar plantations, coffee crops, and mines or in the *casas grandes* taking care of White families. When applied to the contemporary favela, the reference suggests crowded living quarters in dormitories and communities turned inward. The structure of police repression was mounted outside ready to intimidate, beat, and even kill.

7. *Positionality* in cultural anthropology means the placement or social location in which someone is found in a particular environment.

8. In Brazil, *suburb* is a term used to describe areas where poor people live. Suburbs are located on the periphery of or far from the city center.

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The idea that favelas are present-day *senzalas* partly explains why those outside—who live "on the asphalt"—tend to ignore the repression and killing that goes on so close to them. The other side of the coin is the mentality of those who live in the *casa grande*—one might fairly compare many residents of the rich in Praia do Canto, Mata da Praia, and Ilha do Frade to the occupants of the *casa grande*. Further developing the comparison to the *senzalas*, the state, in carrying out its policy of armed invasion to repress drug traffickers, can be compared to the *capitão do mato* (slave hunter) sent into the forest to recapture fugitive enslaved laborers. In the case of favelas, only the target has changed. The police enter a favela to arrest drug traffickers and seize their drugs and weapons. They prefer to view the residents as accomplices, much as the *capitão de mato* might have viewed all enslaved laborers as likely runaways.

## DIGITAL INEQUALITIES IN VITÓRIA

Vitória ranks at the top of Brazil's rankings of access to digital technology. During the time of my fieldwork in 2012 and 2013, the city ranked third in "access to personal computers at home," with 74 percent of the population having access. It also enjoyed a second-place ranking of "access to personal computers with internet at home," with 68 percent of the population. Among state capitals, Vitória was the leader in broadband access at home; 81 percent of the computers with internet access had a broadband connection (Neri 2012). According to Neri, these impressive numbers were a consequence of Vitória being one of the Brazilian cities with the highest human development index and concentration of people in upper classes. Nonetheless, one-third of the population still did not have access to the internet at home and depended on Community Technology Centers (CTCs)—such as Telecenters and LAN Houses—for access. Given my observations and the locations of the Telecenters, digital inequalities followed the same geographic class and race distributions in Vitória.[9]

9. According to the Telecenter manager, the city deployed the CTCs in the neighborhoods where the residents had low literacy and difficulties with infrastructure and internet provider services. Two Telecenters were located in wealthier neighborhoods, such as Jardim da Penha and Jardim Camburi, to serve their high student populations.

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Since 2009, the city has been trying to alleviate digital inequalities by installing Telecenters in poor neighborhoods with problematic access to digital technology and the internet. In 2012, Vitória was ranked fourth among state capitals in providing free public access, with twenty Telecenters and the Vitória Online project. Vitória Online was a set of technologies that allowed the residents and tourists to access the internet using a wireless network without the need for a commercial provider. The project started in 2009 to promote digital inclusion and support for tourist and economic development through a public mesh network. The open wireless network was available in seventeen neighborhoods, in forty-nine hotspots (parks, public squares, and government buildings), on two beaches, and in five Telecenters (PMV 2012).[10]

Telecenters are facilities where the general public can access computers for free. The computers are usually equipped with a variety of open-source and proprietary software and an internet connection. In Vitória, Telecenters started with seven units in 1998, incorporating old computers, desks, and chairs donated by the city government. In 2011, the city applied to a federal program called Telecentros.BR and was awarded twenty kits of ten PCs, one server, two routers, one printer, and ten desks and chairs each.[11] According to the Telecenter manager, the city opened only twenty units because that was the number of kits awarded. However, she also mentioned, Vitória needed more than twenty Telecenters to fully cover every poor neighborhood in the city.

LAN Houses were centers that also provided internet access to the population. These are privately owned establishments like cybercafés where people pay to use a computer with internet access and a local area network (LAN). These establishments were also important digital inclusion venues

10. Vitória Online's hotspots were not necessarily in poor neighborhoods; they were available in rich areas, such as Mata da Praia and downtown, as well as in poor areas, such as Itararé and Bairro da Penha.

11. Telecentros.BR was a program sponsored by the federal government that supported public and community spaces for digital inclusion. The program awardees were provided with internet routers, computers, and financial aid to hire and train Inclusion Agents.

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in the area.[12] They were not associated with the government, and their owners did not receive incentives to run their businesses, other than their income. According to my observation, each neighborhood in Territory of Good had two to three LAN Houses. They were used by favela residents to access the internet and its games and to gain skills, socialize, and develop their communities. LAN Houses first became popular in rich neighborhoods, but due to factors such as the diffusion and affordability of home computers and broadband internet, they did not stay in business for long. In the favelas, however, LAN Houses were still operating, since ownership of digital technologies and broadband availability were still low.

## POSITIONALITY

I came to the favelas from an upper-class background and always must keep in mind that background and what brought me to them. Since the beginning of favelas' growth on the edges of Brazilian cities, outsiders have perceived them as sites of violence and drug trafficking. They think of their residents as *favelados*—uncivilized, poor, low level of education, culturally sterile (Alves and Evanson 2011),[13] and a source of danger and instability to their neighboring cities. Unfortunately, because I grew up in Vitória, I was also part of the large group of outsiders that believed that the city's troubles primarily came from the favelas. Along with the city's strong classism and racism, my prejudice was heavily reinforced by media that described favelas through crime reports from police blotters.

The environment I was immersed in growing up did not impart positive representations about favelas. I didn't hear anything non-stigmatizing in conversations with family or friends, from news reports, on soap operas, or in government discourse. Despite their bad reputation, favelas caught my attention in other ways. I remember watching documentaries about Brazilian soccer players from poor communities, where I could see a less

12. *Digital inclusion*, in the context of Telecenters and LAN Houses, means physical access to digital technology and appropriation of such technology to improve the local residents' lives.

13. People that belong to places that are culturally sterile do not have belief systems, knowledge, art, morals, law, customs, or any other capabilities and habits.

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derogatory view of the favelas. My private-school friends used to say that I had a *forbidden fruit syndrome*—a fetish with the unknown—to explain my fascination with favelas. Because of our background, it may have been easier for them to say that I was obsessed with forbidden favelas than to realize that these places had value and deserved respect.

I played volleyball for a club called Álvares Cabral (also in Vitória). Álvares Cabral prepared athletes for professional volleyball clubs in Brazil. They drafted players from all over the state of Espírito Santo, regardless of their class or race. Through this club I had the opportunity to play and become friends with people from the peripheries, who showed me around their communities and enlarged my perspective. My interest grew. I began to read about their neighborhoods, talk with residents, and participate in programs that could provide me with a fairer sense of the favelas. Slowly, favelas became more than a personal interest.

As I was getting better acquainted with the favelas, I became more and more aware that there was a side of their story that was being ignored. Favelas could indeed be violent places due to drug cartel and police activities, but their residents were not culturally sterile or uncivilized—as they are often perceived. Quite to the contrary—I found them to be savvy and *fully human* (see P. Freire 2000, 55). I came to believe there was more to be learned from them than they could learn from outsiders. While I studied in private schools in Brazil that followed Western educational models, I was surrounded and influenced by the local practices and situated knowledge.[14] This learning and knowledge went beyond Western standards such as playing *pelada* (Brazilian pickup soccer) in the streets, going to rehearsals of samba schools, and participating in *capoeira* circles—these are activities that have their roots in Brazilian black culture and that have also been appropriated by the upper classes in the country.[15] During my college years studying computer science, I helped to develop two digital inclusion programs in which I taught computer

14. Donna Haraway (1991) coined the term *situated knowledge* in her book *Simians, Cyborgs, and Women*. Situated knowledge is the idea that "all forms of knowledge reflect the particular conditions in which they are produced, and at some level reflect the social identities and social locations of knowledge producers" (Castree, Kitchin, and Rogers 2013, 464).

15. *Capoeira*, a martial art that combines elements of dance, acrobatics, and music, was developed by Africans in Brazil.

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basics to favela residents. However, instead of coming to them with a top-down teaching approach, I used the programs as a way to learn from them about their life experiences as I was instructing them.

My interest in telling their untold side of the story stayed latent until I started my PhD, when I learned about methods and literature that would let me study favelas and help others understand them better. During my research, I lived in my mom's residence in Bairro Vermelho, where I had lived from 2001 to 2007. Located in an upper-class neighborhood, it was just one mile away from Territory of Good. In spite of the proximity to the favelas, I was unfamiliar with it. However, this useful distance, combined with the empathy of my approach, allowed me to see beyond what would be considered irrelevant or uninteresting by our upper-class neighbors.

During my ethnography, I was aware of the differences in power and status brought by my background as a White upper-class man. To alleviate the barriers that such differences may have caused, I approached the favela residents as what Rubin and Rubin (2011) refer to as "conversational partners." I listened to the favela residents with an open heart and mind and was receptive to what they expressed. My motivation was not to judge them but rather to understand them. Such an attitude is perceived as the art of listening sympathetically, in which the researcher is deeply engaged and actively thinking about what is being expressed (Madison 2012). Thus, in this book, I try my best to amplify the voices of the favela residents, instead of speaking for them.

My being inside the favela, at first, seemed to be an issue for different groups of people. On the one hand, my family was worried and not pleased with the timing of my fieldwork, due to the intense drug war that was happening. Some of my friends thought I was insane for risking my life "to teach poor people how to use computers," which I thought was ironic since I was the one being taught by them. And in the favela itself, I observed that the word *research* caused silence, conjured up bad memories, and stirred up distrust between me and favela residents. They mentioned being approached by previous researchers, who treated them, they said, as "laboratory rats." A harmful history had infused the idea of research with classism, racism, and condescending power. The research they had participated in did not benefit them. Instead, researchers deployed their outsiders' perspectives to report outcomes that unfairly classified and represented residents' life experiences. Residents did not identify

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with how their stories were told and felt (once again) exploited. Smith (2012) claims that many researchers believe their research projects serve humankind but become oblivious to their own practices and the harm caused to indigenous communities by framing outcomes from the vantage point of the West. Although my internal biases and identity as an upper-middle-class Brazilian affected my approach to the field, I attempted to carefully move across boundaries while being attentive to class-based concerns. I hope not just to "help" favelas but to relay the voices I heard in them.

But relaying others' voices is not straightforward. As Smith (2012) suggests, critical and post-colonial researchers are obliged to represent marginalized communities by respecting their history, values, and beliefs. Representation has consequences, because how people are represented influences how they are treated (Hall 1997)—which I saw in the unfair media portrayals of favela residents that re-entrenched historical structural inequalities. Hence, it is my responsibility to "resist domestication" by using the available resources, skills, and privileges to amplify the voices of favela residents and provide a fair and empowering account of their stories , which are often untold, particularly outside of Brazil (Madison 2012). Telling the untold side of story through the lens of the oppressed—who have been suffering the consequences of marginalization and exploitation—promotes their recognition as human beings who deserve respect and recognition for their values and beliefs.

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## 2

# REPAIRING THE BROKEN CITY

Upper-class Brazilian outsiders have historically perceived favelas as the rotten side of their city.[1] They regard them as corrupted areas where nothing works. Drug cartels and police brutality disrupt favelas' social fabric, broken pipes leak, and stolen copper cables impede the smooth operation of favelas' infrastructure. Accordingly, they are keen to support policies that force evictions and increase the presence of police in the area. From afar, upper-class Brazilians misjudge favelas as being dangerous. Their distanced demonization of the "other side" reflects an elitist need to dehumanize lower-class inhabitants by delegitimizing their living spaces. I, instead, regard favelas as highly functioning environments, despite ongoing oppression, where residents rely on each other's acts of solidarity and care to create function out of dysfunction.

What does it mean to *care* for technology, as Steve Jackson (2014) asks us to envision the work of repair doing? What does it mean to *suffer* and become enraged with it in ways that aren't entirely comprehensible to one's self? Lara Houston (2017) addresses Jackson's question by claiming that *care* for technology means removing objects' wear and alleviating malfunction by replacing broken parts. Such work of *care* is clearly not settled at the point of design but is repeatedly negotiated through repair. Repair, as pointed out by Jackson and Houston, is approached in Science and Technology Studies (STS) scholarship as an intrinsically social-material process (work).

Users' thoughts on the motivations of technology's designers may seem fanciful. "Surely, they cannot be more evil than the government," uttered favela resident Tereza when using a keyboard. However, they offer an entirely new way of thinking about how technological failure forces itself to the forefront of imagination and comprehension. Large-scale breakdown may inspire a kind of fear and helplessness (any number of disaster movies will

1. See Fernandes (2002) and Lemos (2017) for discourses on Brazilian favelas.

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attest to this), but it is this small-scale frustration—a daily compounding of anger toward an incomprehensible *thing* that invisibly works for richer, better *others*—that provides us with a poignant and meaningful window into thinking about what technology does to us, and what we can do with it.

As Mike Davis (2006) notes in *Planet of Slums*, if the future of the city lies in the Global South and is characterized by severe legal, economic, and social precarity, we must theorize ways of living that render these conditions of ongoing uncertainty more manageable for future urban residents. Davis challenges us to understand how they *make do*, even if *getting ahead* is impossibly constrained. In response, in this chapter I examine how repair sustains the everyday Mundane Technological lives of the favela's inhabitants and how they attempt to liberate themselves from the oppression of infrastructural breakdown. Breakdown and failure are not deviations from upper-class normality, as upper-class Brazilians believe. Rather, I argue that breakdown and failure are how technology is most commonly encountered in everyday lives permeated with uncertainty. Instead of technological normalcy being marked by uninterrupted functionality—as in rich neighborhoods or developed countries—technological normalcy in favelas involves experiencing the continually dropping signal, the broken keyboard, and the easily scuffed and broken off-brand phone.

Infrastructural breakdown is not an exception to a "normal" state of continuity. Rather, it is the crucible in which the rhythms of everyday life must be forged. Susan Leigh Star (1999) notes that the normally invisible quality of working infrastructure becomes visible when it breaks, but such claims beg the question, "For whom does it become visible?" As I show in this chapter, it becomes visible to people who live in conditions of pervasive uncertainty. Favela residents are required to accumulate vernacular knowledge to simply get around in their everyday lives. They can't help but see infrastructure—not because it suddenly breaks down but because it permeates their lives. These people must grapple with breakdown in zones of informality such as the favela and Davis's city of the future. Studying how residents manage infrastructural breakdowns provides insight into the kinds of work, consciousness, people, and spaces that allow them to maintain a semblance of continuity against a background of built and experiential uncertainty. The interactions that we encounter at the level of the neighborhood and its individual residents deliver intimate insights that systems-level thinking can obscure. These insights, I will show, are crucial

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to understanding how Mundane Technologies—especially communicative technologies described as "digital" and "new"—are taken up and appropriated in areas far from centers of technological and political power.

## REPAIR AS MUNDANE TECHNOLOGY

In an environment like favelas—where pervasive uncertainty governs ordinary lives—it is even more critical that we understand how Mundane Technologies and acts of care hold together a semblance of continuity. Repair is one of these ongoing Mundane Technologies. As Steve Jackson notes, it is through repair that "order and meaning in complex sociotechnical systems are maintained and transformed, human value is preserved and extended, and the complicated work of fitting to the varied circumstances of organizations, systems, and lives is accomplished" (2014, 222). By adopting Jackson's notion of repair, I deviate from progressive narratives that have been embedded in discourse surrounding technology in zones of informality, such as Nicholas Negroponte's One Laptop Per Child (Ames 2019). Repair helps me think through how Mundane Technology slots into the continuance and ongoing maintenance of everyday life. This approach builds on studies of repair and maintenance work by different scholars, including Lara Houston (2017), Daniela Rosner and Morgan Ames (2014), David Edgerton (2011), and Douglas Harper (1987). They understand that repair is a social-material process of breakdown that is not predominantly material. Repair adds depth and nuance by showing the range of processes involved in decay, fracture, and failure that might otherwise dissolve into breakdown. These scholars also approach maintenance and repair as practices that emerge in everyday life and are shaped by material, infrastructural, gendered, political, and socioeconomic factors. It is impossible for designers to effectively script interactions ahead of time, especially since they are away, unaware, or disinterested of the site of repair.

Repair is a Mundane Technology that highlights the systemic instability and individual creativity that constitute workable technological systems in the favela. A concern with "making do" acknowledges that, while acts of creativity and small-scale works of repair knit together zones of informality and neglect, they are subject to the pervasive disruptions and disparities that long-term oppression, infrastructural neglect, and abandonment bring in their wake.

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In the favela, residents struggle against these larger infrastructural breakdowns. They fight over land titles and the reliable provision of systems-level infrastructural services by the private sector and the government—all closely tied to legal recognition.[2] Instead of focusing on the broad sweep of legal recognition and its infrastructural consequences or on the difficulties of implementing large-scale technological projects within zones of uncertainty such as the favela, I focus on how Mundane Technologies work on a smaller, more personal level. I believe this approach is more suitable to understanding the intersecting scales of failure and reconstitution at play in small-scale technologies that saturate daily favela life. Previous writing by STS scholars on infrastructural systems focused on their large-scale constitution (Bijker, Hughes, and Pinch 1987), the affective and symbolic power of these grand technological systems (Nye 1996), and their consequences (Graham and Marvin 2001). I take a different tack here, directing my attention to technologies that historian David Arnold (2013)—recalling devices such as bicycles and sewing machines—calls "everyday technologies." These technologies, such as mobile phones, keyboards, and wired internet, have been designed to fail over a short period of time and be replaced instead of fixed (Rosner and Ames 2014).

Why characterize repair here as a Mundane Technology? Repair, in the same way that I define Mundane Technology, is a way to appropriate enforced and colonial technological designs that weren't made for places like favelas. Such appropriations come in forms of community unity, organization, and *luta* (fight and struggle). As Paulo Freire claims, these forms of appropriation are dangerous to the oppressors, because realization drives actions of liberation (2000, 141). Drawing inspiration from Arnold, I contend that technologies such as a keyboard and a mobile phone figure most prominently in the intimacies of everyday life. They are scattered throughout the background of daily work and domestic life and are more tightly entwined with everyday practices than large-scale systems that have drawn the interest of STS scholars. They are the digital artifacts that reach the oppressed and are appropriated daily to counteract breakdown. This isn't to say that infrastructural systems have no place in the discussion; clearly,

2. For more on informality (and the infrastructural breakdowns that characterize and color it) as a conceptual approach to the city, see Ananya Roy (2005). For more on the legal struggles concerning recognition and regularization of Brazilian favelas, see Joseli Macedo (2008) and Edesio Fernandes (2002) in Durand-Lasserve and Royston (2002).

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such large-scale systems as reliable water, sanitation, and electricity matter tremendously to the experience of everyday life. However, looking at and through everyday technologies illuminates the affective and material intimacy and ordinariness that characterize the use of these devices and the fragile lives and systems they support.

## REPAIRING THE KEYBOARD

QWERTY, the most common modern keyboard layout, is based on a design created for the US-American Sholes and Glidden typewriter to speed up typing by preventing jams. Regardless of its inefficiency and economic controversies, it remains in use on electronic keyboards due to the belief that alternatives fail to provide very significant advantages (Liebowitz and Margolis 1990). Although countries like France and Germany have changed the QWERTY layout to better match their languages, countries in the periphery of technology development import the US-American ASCII keyboard with very few changes. In Brazil, the standard ABNT and ABNT2 keyboards have just a few differences from the ASCII keyboard: the letter *Ç* has its own key and symbols such as ^ are rearranged.

People worldwide perennially ask the question, "Why are the keys arranged in the QWERTY layout and not in alphabetical order?" But in the Community Technology Centers (CTCs) in Vitória, this question is posed with frustration and even anger. Carla (forty-one years old) expressed her bitterness. "I'm trying to learn how to use this thing [computer] but it doesn't make sense; I waste so much time to write [type] something because I can't find the right letters [keys]. It gets in the way of learning this thing [computer]; I feel angry and unmotivated. But that's okay because when I find the damn letter [key] I don't push it, I punch it!" Worse than anger and frustration, a QWERTY keyboard could cause avoidance, as was the case with Regina (thirty-nine years old). "I don't have the patience; if I have to write [type] something I ask my son Jadson to do so. He comes here and gets everything done quicker than me. I know that this way I won't learn anything, but we have so many problems already. . . . Why can't they make our lives easier and put this in alphabetical order?"

Ontologically, favela residents were accustomed to categorizing and organizing symbols in familiar ways, such as alphabetical and numerical order. Their preference for typical arrangements is why the QWERTY

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layout frustrated them. Since typewriters have a long history in the Global North—where it was designed and developed to improve the efficiency of typing in English—US Americans became acclimated to a QWERTY layout before those in the Global South. Even when typewriters were translated for the Global South, those in wealthier areas transitioned to computer keyboards more smoothly (Freund 1982). They did not reach Southern peripheries such as favelas abundantly. Even as computers and mobile phones were becoming more accessible to favela residents, they retained a resistance to the unfamiliar keyboards. Their resistance was mainly caused by their lack of experience with typewriters and the decontextualized layout of the artifacts' keyboard. The letter keys were not the only issue in the Telecenter; the arrangement of the number keys was often contested by the users. João (seventeen years old) gestured to his keyboard, saying, "As you can see, I'm always on the phone and I'm used to these numbers [keys]. It starts up here with the number 1, and then goes down to 9 and then 0. Every time I have to write [type] my cellular [phone] on Face [Facebook], I have to do it two or three times because these numbers on the keyboard are upside-down."

CTC users questioned the intentions of technology designers, since they couldn't understand why the numeric keys were arranged differently from the cell phones they used far more frequently. Tereza (thirty-two years old) noticed that her keyboard didn't mirror the familiar arrangement used on voting ballots, saying that "even the government said that the keys on the electronic ballot are arranged like on the phones to make our lives easier, so why this [keyboard] is arranged this way? The technologists can't be more evil than the government!" Favela residents were "invisible" to technology designers, as Jenna Burrell's (2012) Ghanaian users were—designers ignored their cultural background and context when developing technologies. The ink on the keys was also an issue. Luis, the owner of Point LAN House, expressed his disappointment with the keyboards he bought for his computers, stating that "the letters are always fading away from the keys. My costumers complain a lot, but I don't have the money to keep buying new ones. . . . I think they are made in China."

Because users paid by the hour at LAN Houses, some believed that the owner erased the letters on purpose just so they would take longer to type, which made Luis lose some customers. Fatima (forty-nine years old) expressed just this sentiment, complaining, "I rather stay away from computers than to come here. I don't think he [Luis] is being honest." When used

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daily, the ink on the keys quickly faded. The LAN House owners couldn't afford to constantly buy new keyboards, so their solution was to print small letters and glue them on the keys with clear tape. The Telecenter's Inclusion Agents also had to creatively repair their keyboards. Instead of doing it themselves, they invited frequent Telecenter users to help them out. Patrick claimed this act of reinvention was to help people feel a sense of agency. "This way they can gain some sort of ownership over the keyboard, play with it, understand their layout better, reflect on it, and repair it."

The Telecenter agents promoted two workshops where regular users printed the letters using their preferred font and size. Roberta (fifty-three years old) saw this as an opportunity to improve her typing since she couldn't see the original letters on the keys; she printed larger letters for the keyboard. During these workshops, users compared keyboards and noticed which keys were faded. These interactions led them to reflect on the Portuguese language and what the keyboard usage said about their community. Rafael (seventeen years old) noted, "I need to print the letters A, E, O, and S. I wonder if it's because Paula types on this keyboard and gossips about Ana Caroline all the time!" Paula (sixteen years old) protested and raised an intriguing question: "Maybe because most words we type have these letters. Look at our names; look at the name of the stores and places we go to here at Territory of Good. They all have these letters . . . multiple times."

Paula's statement in the workshop encouraged others to research the most-used letters. By no coincidence, they discovered that those letters were among the most frequently used in Portuguese. Rafael concluded that if they "ever find another faded key on any keyboard, it will likely be one of those [A, E, O, S]. Making our lives easier when guessing." The Telecenter users also proposed an alternative solution to the QWERTY keyboard: develop an alphabetic order layout. Neuza (twenty-seven years old) said, "I don't know why the keyboard is like this; God knows what is in the head of its designers. But if I were to design it, I'd put the keys in alphabetic order. Especially because the letters on the keys fade away. If they fade away, at least I'll have a better chance to guess where they are. . . . And then we can move slowly towards this weird format [QWERTY layout]." The workshop promoted what Paulo Freire believed: people engage with learning more enthusiastically when they study subjects and topics that relate to their own experiences.

The example of the keyboard illustrates how digital inequalities are driven by artifacts' material connection with other artifacts. The QWERTY

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keyboard came from typewriters—an artifact developed in the Global North and West. In the context of the favelas of Brazil, the traditions and educational structures that demanded this standard present a barrier. In the context of personal computing, these material connections may be only a mild annoyance until frequent interactions render them commonplace. In the context of the CTCs—where an individual's interaction with a computer may be less frequent—materialized assumptions can present a real problem, such as the belief that the QWERTY layout is appropriate. Ink wearing off the keys indicates that the durability of the keyboard's material is also a concern. Tensions around keyboards reinforce that idea that computers are used differently in favelas. From the perspective of the individual, use of personal computers is less common than cell phones; from the perspective of a single keyboard, use is greater. While abstractions in high-level code may treat resources as if they are inexhaustible (Blanchette 2011), when introduced into the context of the favelas, this assumption can impede access to information and smooth functioning. Even with support for the specific artifacts of computation (i.e., the computers), use is still subject to the limitations imposed by the materiality of supporting infrastructures.

Researchers who studied alphabetic keyboards (see Granata et al. 2010; D. A. Norman and Fisher 1982) found they were considered inefficient because they slowed down typing speed, compared to a QWERTY keyboard. However, these studies deployed the alphabetic keyboard in northern contexts where people were already accustomed to the QWERTY layout. The alphabetic keyboard may not be the most efficient long-term solution for those in the favelas. For example, in the job market, favela residents would most likely encounter QWERTY layout keyboards. However, as mentioned by Neuza, developing an alphabetic keyboard along with typing courses would be a useful Mundane Technology to progressively introduce CTC users to the QWERTY keyboard. In other words, since some users were often discouraged to use the computers and the internet due to the barriers created by the QWERTY layout, using a temporary and more familiar artifact could alleviate resistance between CTC users and the technology.

Such Mundane Technology—the process of reimagining the alphabetic keyboard—reminds us of Paulo Freire's concept of "generative themes," which involves encouraging people to bring in familiar experiences, situations, and relationships that can help them "codify the world" in a way

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that speaks true to their reality. It is the oppressed perceiving "viable new alternatives" beyond the "limiting-situations." In other words, one path to emancipation and humanization is to perceive oneself as an active agent of change and the world as a mutable entity (Blikstein 2008). In the fields of design and human-computer interaction, this Mundane Technology would be similar to what scholars call a "design for transient use"—a particular digital technology that is not a wholesale solution but rather a transitory means to a more permanent arrangement. In the case of Mundane Technologies, instead of having a designer develop a new layout for each step of the transient design process, favela residents would appropriate the keyboard. Next, they could progressively redesign the keyboard themselves toward the QWERTY layout while taking their time and working at their own pace. Taking this approach would benefit favela residents in two ways. First, it would account for human values in a principled and comprehensive manner throughout the process of "value-sensitive design."[3] As DeAna Brown (2015) claims, this design process exposes the values embedded in the system by making them transparent to end users. Second, a design for transient use would foreground the expectation of the use of the Mundane Technology, ensuring that users were conscious of the implications that using the digital technology could have on their lives.

## THE INTERNET OF THE OPPRESSED

The makeshift character of fundamental infrastructural services, such as electricity and water connections, reflects the recent and inefficient urbanization of favelas in Brazil as a whole (Custódio 2017; G. O. Lemos 2017; Perlman 2010). While the government did not forcibly remove favela residents during my fieldwork, it infrastructurally neglected them, because services such as water, electricity, and gas were never formally implemented in Territory of Good's entirety. Antina von Schnitzler (2016) encountered a similar situation in post-apartheid South Africa; infrastructure of townships like Soweto became sites where citizenship was mediated and contested as local residents wrestled with the constraints imposed by infrastructure. Back in favelas, forced to turn to their own devices to ameliorate institutionalized neglect, inhabitants frequently acquired utilities illegally

3. See Friedman (1996) for more on value-sensitive design.

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through makeshift wire and pipe taps called *gatos* (cats). For this reason, although the Gueto, Games, and Point LAN Houses acquired their utilities through legal means, the *gatos* all around the favela affected the voltage running through the power lines to the LAN Houses. The fluctuating voltage damaged their computers, as Luis, the owner of Point Lan House, explained. "Changing light bulbs here is a frequent activity, but they are cheap; what really concerns me is how often the power supply units fry. Most of the time I don't have the money to buy a new one right away, so I have to put the computers away until I can buy new power supply units." Lisa, owner of the Gueto LAN House, echoed these sentiments. Like Luis, she blamed cheap power supply units rather than fluctuating voltage in the power lines, saying that "these power unit supplies are bad and fry all the time; they really hurt my business. I guess the ones I can afford are not good. I wish there were stronger and cheaper units."

The irregular and makeshift infrastructure of favelas also impacted the willingness of companies to provide services to customers who lived there. Internet providers were unwilling to invest in the physical infrastructure necessary to deliver a reliable broadband connection. Favela residents like Fatima (forty-nine years old) were familiar with battling internet service providers (ISPs) to get a connection. "I called GVT [internet provider] and they told me that the outdoor internet box for Gurigica has been completely 'taken'; thus, they can't offer me an internet connection. . . . They suggested me to find a neighbor who has internet and share the connection with him because they won't expand their box here." Lisa and Luis contracted a 3 Mbps internet plan for their LAN Houses—the fastest option available to them. This connection, however, had to be shared with five or more computers. Lisa noted that the speed of their connection was not a trivial matter, given that Windows updates and security patches were *only* available online. "The users don't complain too much because this is the only internet they can access. . . . The problem is when I have to make a security or Windows update. It takes forever to update every computer I have. It is dangerous because I have to stay in for the whole night and expensive since I have to pay for electricity." Here, Lisa was alluding to the danger of running a business late night due to drug cartel activities. Although internet providers were responsible for maintaining their infrastructure in the favelas, they were not keen on improving it and making it more accessible.

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Internet connectivity began to acquire the makeshift character common to other resources in the favela when residents struggled to overcome the arbitrary limitations imposed by the ISPs. Like electrical taps or strung-out cable television connections, the internet too had to be acquired and maintained in the face of institutional neglect. The internet was not the deeply embedded, easily available resource that teams who developed Windows updates imagined their users to possess. Residents like Rafael (seventeen years old) were sanguine about their situation. "[Internet providers] say they won't improve their internet infrastructures because there aren't enough costumers for them in the *morro* [hill], but it's not true. . . . If you look out there, every light pole you will see [has] tons of blue cables going to every direction and every house. . . . We need more and better internet."

Cyber LAN House owner Gustavo was forced to search for information on computer networking himself, pointedly noting that this task challenged the well-worn institutionalized neglect the favela had always been subjected to. He said, "I can't stay here and wait around. . . . The government is not interested in us, so I might as well do something about it [the internet]. The people here don't have the time to learn about technology and internet, and since this is what I do, I decided to look for articles on Google and YouTube that could teach me how to do this [bring the internet to his community]. This is indeed another source of income for me but I also feel I'm doing some good for my community." Following his crash course on computer networking, Gustavo subscribed to a faster internet connection through his uncle's house located on the border of the favela, in a wealthier, better-serviced neighborhood at the base of the Jaburú hill. Gustavo used fifteen Linksys routers placed inside plastic boxes on the light poles and five hundred meters of Ethernet cable to connect his LAN House—and subscribers in the favela community. He charged them R$35.00 (approximately US$10.00) per month for a subscription and was working at maximum capacity. The price was still unaffordable to several residents—but was much cheaper than the average cost of R$160.00 per month for a subscription from an internet provider. The persistent internet connection that the LAN House owners provided to the residents was vital to their information needs—even if it required a paid subscription. The Telecenters that

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provided free access were over one mile away from those areas, and crossing territorial boundaries was not safe due to the armed conflict.

By centralizing technological availability, LAN Houses became a source of technological help and knowledge for the favela residents. The increasing affordability of technology created more first-time internet users. The LAN Houses drove this trend by providing a base for learning and maintenance. The government offered financing programs, such as Computador para Todos (Computer for Everyone), which made it easier for most people to buy a computer by letting them pay for it in monthly installments over four years. Games LAN House owner Ronald described the vital role his location played to guide this flood of new users.[4] "The problem is that they don't know how to use it properly. People would come and ask me if I could fix their computers since I maintain the computers at my LAN House. I saw it as an opportunity to broaden my business. . . . Now I get computers with a thousand viruses, fried boards . . . and if it wasn't for me they wouldn't be able to fix their computers since I charge them a fair price and usually recycle boards." LAN House operators like Ronald aggregated necessary technological knowledge through a combination of hands-on interaction and online videos and articles rather than formalized training or official certification.

In favelas, information about how to use a computer—much like knowing how to repair a computer or provision cable television—was cobbled together with little emphasis on broader technical skills or theoretical acumen. This piecemeal process of overcoming precarious conditions through improvisation, bricolage, and adjustments is known as *gambiarra*, widely used in Brazilian culture and usually linked to the popular phrase *jeitinho* (the Brazilian way).[5] Members of the upper class have deprecated both as

4. Even this seemingly mundane ability—to pay for goods in monthly installments—is a fairly recent development, following decades of inflation and the introduction of a new currency; see Chana Joffe-Walt (2010).

5. This characteristic is attributed to the Brazilian people, mainly to the popular mass, who obtain advantages from interpersonal relationships. Sociologist Jessé de Souza points out in his book *A Elite Do Atraso* (The elite of backwardness) that this dominant self-image of Brazilian society is used as a legitimation tool for all "types of economic and political interests of the economic elite who rule the market" (2019, 30). "The capital of the cordial man is the capital of personal relationships, or what Roberto da Matta . . . would later call 'the Brazilian way,' a supreme

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illegitimate. In response, scholars have worked to recognize *gambiarra* in an attempt to legitimize approaches from the peripheries. José Messias and Ivan Mussa (2020) define *gambiarra* as a decolonial technique, driven from precariousness, that joins accessible parts and items in complicated sets. From their perspective, *gambiarra* does not fulfill any ideal project; it simply occurs because these creative relationships are possible. In the same vein, Pamela C. M. Corrêa (2020) aligns this approach with creative expressions, intuitive designs, and the ability to adapt and subvert the predetermined use of objects of different natures. To her, *gambiarra* is similar to "technological disobedience"—a term coined by Cuban designer Ernesto Oroza (2016). Collectively, these scholars see *gambiarra* as a practice of repair and creative redesign. In this book, I continue their expansion of the term by including it in my framework of Mundane Technologies—in which acts of repair are avenues in the pursuit of liberation from prescribed oppressions. *Gambiarra* was often necessary in favelas because the infrastructure was severely strained in terms of durability and resilience: two characteristics that define the classic "large technical system" of Thomas P. Hughes (1987).

Microsoft assumes that the delivery of critical system updates will be easy because customers have access to a reliable internet connection, they can stay with their computers throughout the installation process without risking their lives, and power will remain on throughout the download. In the favelas, this imagining of the world and potential users of the systems falls far short of reality. As a result, the makers of these operating systems fail to account for such users and places, despite all their pretensions to global coverage. Because connective cables, personal security, and reliable electricity were all in short supply, the LAN House owners in the favelas not only fought an uphill battle against the most obvious and visible signs of infrastructural neglect and degradation—failing power, tangles of *gatos*, and *gambiarras*—they *struggled for* them. In the process, they were forced to confront latent limitations within technological systems that impacted places and people deemed peripheral.

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nonsense unfortunately naturalized by repetition and used as an easy explanation in all corner bars in Brazil. Now, dear reader, whoever has access to important personal relationships is someone who already has economic capital or cultural capital in some form before" (32).

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## MOBILE MUNDANE TECHNOLOGY

Infrastructural neglect also manifested within seemingly intangible wireless communications networks. Mobile phone carriers did not provide satisfactory signal coverage in the favelas. This neglect led to constant complaints from the residents, especially because the innocuous act of walking around with a valuable cell phone to search for a signal to complete a call was an extremely dangerous activity. Shootouts from the intense drug war were happening throughout my fieldwork. Fernanda (sixteen years old) talked about how she negotiated this dangerous situation. "My smartphone has no bars up in here [at the top of the hill], my calls are never completed, and it is really hard to communicate with people from here. I don't even know [why] I pay for this thing. When I need to make urgent calls, I try to go to Bairro da Penha, forcing me to walk through Hermínio Blackman Ave. You know that avenue is known as the Gaza Strip of Vitória, right?" Ironically, the hill where the favelas were located was also known as the Morro da Antena (Hill of the Tower) because of the eponymous cell phone tower located at its peak. Yet, as Rodrigo (twenty-one years old) noted, despite its lack of utility for the favela residents, he saw it as a hopeful symbol. "I come up here on the hill almost every week. I guess that's one way to move up in life. I never went up this crazy thing [cell phone tower] but I look at it and see that there's still more to achieve. It gives me hope."

Fernanda and Rodrigo's frustrations about connectivity, even in the ironic shadow of a cell tower, was symptomatic of infrastructural biases. As it turned out, there were structural reasons why customers in the peripheral neighborhoods of Vitória (or in the legally unrecognized favela) had significantly more difficulty completing calls than residents in wealthier neighborhoods. During fieldwork, the major cell phone carriers—VIVO, owned by Spain's Telefónica, and TIM, the Brazilian subsidiary of Italy's Telecom Italia Mobile—came under investigation by state prosecutors in Espírito Santo for enforcing social segregation within their networks. Anatel, Brazil's national telecommunications agency, noted that these phone carriers had a blocking rate (the percentage of calls not allowed into the system) in marginalized neighborhoods that was significantly higher than 5 percent, the maximum allowable rate set by the agency. Anatel reported that "users . . . were being discriminated against in relation to the enjoyment

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of the carriers' network service, i.e., the blocking rate was much higher in some peripheral neighborhoods within Vitória, while in others this rate was negligible" (Campos 2012).[6]

LAN House owners, however industrious or entrepreneurial, cannot alone fix institutionally enforced infrastructural discrimination. I don't believe that the LAN House owners' clever fixes and ongoing small-scale repairs formed an enduring solution to a much larger problem of neglect. Rather, their informal patches helped favela residents forge a pleasurable, useful technological life *within* a zone of institutionalized infrastructural neglect. That is, LAN Houses were hardly a curative for greater ills. They did, however, encourage residents to carve out areas of small, ordinary pleasures within the anxiety and uncertainty that defined their daily lives. They could experience the pleasure of talking to friends on their phones or looking up sports scores on the internet—small-scale pleasures, to be sure, but still meaningful.

The most widely used smartphones in the favelas were called *xinglings* (Nemer 2018c). These phones were only really "smart" when Wi-Fi was available, since the carriers' infrastructural choices segregated the favela users from consistent wireless service and data packages were relatively unaffordable.[7] Some *xinglings* were smuggled into the favelas by people related to the drug cartel and sold on the informal market. While this smuggling may be seen as illegal and amoral, it can be reframed as an act of techno-political liberation, as Lilly Nguyen (2016) claims. To her, smuggling phones in the Global South is a strategy for breaking into global techno-culture for those located along the margins of global modernity. The cartel had a deal with the sellers, who gave 30 percent of sales to the traffickers in exchange for protection. The sellers were naturally secretive about the origins of the smartphones, making it difficult to verify their exact origins or sales. However, Rafael, a former informal-market seller, mentioned that the *xinglings*

6. The blocking rate is the percentage of calls that are not allowed into the system, generally the percentage busy but may also include messages and forced disconnects.
7. *Xingling* is used to refer to Chinese imitation and pirated brands, such as HiPhone, Galaxia, and Lumiax. Lara Houston (2017) notes the use of Chinese phones by Ugandans, which were called "clone" phones: beneath housings of "Nokla" or "Snoy Ericsson" (*sic*) devices, screens and parts are rarely standardized.

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were smuggled in from China through Paraguay—a very well-known route of traffic of counterfeit goods made in China.

The *xinglings* came only with a charger and lacked a warranty and guarantee of working condition. The constant power outages in the favelas often damaged the poor-quality chargers and sometimes ruined the smartphones. Favela residents felt neglected since they did not have the money to repeatedly buy new chargers. Hence, the activity of sharing cables and power cords affected group formations and power relations, as mentioned by Beto (fourteen years old): "Here, we purchase *xinglings* in the back alleys or in the neighborhood market. If you're lucky it comes with a charger and that's it. . . . The charger lasts a week. I bought the USB cable separately and now everyone wants to go to the Telecenter with me so they can transfer the photos to the computer and upload them on Face [Facebook]. I've got tons of friends and respect now. I'm even picked first to play soccer."

As I observed in the CTCs, the *xinglings* were shared among groups of three or four friends because not everyone could afford their own. Usually, each member of the group would contribute to the *xingling* experience; one person would bring the smartphone, another would supply the USB cable, and a third would donate a charger. When offline, favela residents used the *xingling* mainly as media devices, utilizing the camera, music, and video players rather than the phone itself. They challenged the technological prescriptions designed by *xingling* designers the same way, as stated by Morgan Ames (2019). Children in her research in Paraguay appropriated their One Laptop Per Child computers as media devices, becoming adept at finding workarounds to watch videos and listen to music rather than writing software—the imagined goal of MIT professors like Nicholas Negroponte. Favela residents perceived the *xinglings* as an extension of CTCs, because both offered a wireless hotspot. In the Telecenters, residents were able to connect to Vitória OnLine, an open and free wireless network maintained by the City of Vitória, which was also accessible in several public places such as municipal parks and city government buildings. In the LAN Houses, users had to pay a fee of R$2.00 (approximately US$0.75) per hour. Although the devices were ostensibly mobile, residents' access to the internet was still bound to such centers. CTCs not only provided a place for users to lend their cables and cords; they also promoted social dynamics such as becoming hangouts for young people. Teenage girls, for example, went in groups to the bathroom to take selfies so they could share

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them later on Facebook (the bathroom had a big mirror that allowed them to capture a larger group).

When using *xinglings* to go online, users mostly chatted on Facebook Messenger and played Facebook games. However, they did not directly upload photo content to Facebook from their *xinglings*. For example, the smartphone that the young women mentioned above used to take selfies had several photos of different people. Technically, they could use the *xingling* to sign in to their Facebook accounts and upload photos directly. However, they preferred to upload to the CTCs' computers so they could choose the best photos and distribute them faster and more easily. For example, Mariana (sixteen years old) mentioned that she preferred to use Facebook on the computer since it offered a better experience than on her mobile phone.

> I can't use it [*xingling*] the way I want. Like on the screen, most of the websites turn into English in the mobile version. I like to use the computer because on the phone it doesn't work quite right. It is not easy to use the phone . . . all these terms that I don't understand. I have lots of difficulties in downloading stuff from the internet: music, photos, videos.

Downloading content from the internet worked similarly. *Xingling* users first downloaded music or videos to the CTCs' computer to ensure the files were not corrupted. Then they transferred them to their smartphones through a USB cable, as described by Roni (eighteen years old). "I come [to the Telecenter] to transfer songs to my smartphone. Music is everything in my life. It sets me free, like when I read a book. The music goes well according to my mood, but everything in life is music. Car noise is music, tin banging is music. . . . Music is like a world where there's no prejudice and judgment, and the smartphone is like the spaceship that takes me there." Since walking around in the favelas was risky, users tried to download as much content as they could in one sitting. Teens like Roni would try to download as many episodes of a television series or songs in an album as possible, so they could experience the joy that the entertainment brought to daily life.

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As Roni mentioned, his *xingling* allowed him to be in a place where he felt comfortable. Smartphones were as valuable as rare gems in the favelas. Their users attained bargaining power because they could exchange their *xinglings* for pretty much any good they desired.

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> Cell phones are the most democratic kind of money here in the favela; they're worth a lot and everyone needs one. I can buy one in the back alley . . . talk to everyone . . . and then if I want to buy something else, I just trade it for something else. The other day I was crazy about a bike I saw. What did I do? I didn't think twice and offered my cell phone . . . the trade was fair. This cell phone will still come back to me. (Fernanda, sixteen years old)

Smartphones also gave favela residents a sense of social inclusion, because they felt emboldened to cross social boundaries when they possessed such a device. Marcos (twenty-one years old) was one of the few informants that owned a non-*xingling* phone—he had a Samsung Galaxy S3 and proudly mentioned, "I got the phone from my mom. This smartphone makes me empowered, because I can just go around to Praia do Canto or Jardim da Penha [rich neighborhoods] and not worrying [about] being judged as poor or *favelado*. When I went to the mall the other day, I had my cell phone in my hands the whole time; it felt like it worked as a key and was opening every door I was walking through."

## MUNDANE TECHNOLOGY: RESISTANCE AS REPAIR

When thinking about forms of difference, a backdrop of legal informality and persistent precarity lends itself to the notion of the favela's infrastructure. But what can we learn from these snapshots of Mundane Technology in a zone of continual infrastructural neglect? If not always functional and reliable, how do infrastructural objects and systems acquire meaning through people's everyday lives and practices? What kinds of character can be attached to an infrastructure that is blatantly visible to the people who live with it? How do we think of systems and technologies that cannot be rendered an invisible part of the landscape, as is common in the developed world? In short, how do people find liberation from oppression through acts of repair?

*Xingling* mobile phones strikingly illustrate the multiple meanings that emerge across differing scales of technological systems. While the larger, systems-level picture is one of segregation and oppression by the major wireless carriers, within areas of the city delimited by their inability to receive calls, the smuggled *xingling* smartphones are an intimate part of everyday life. They are affectionately described by their users as doors leading to other, perhaps better, places. *Xinglings* act as a doorway into global techno-culture rather than out of sociotechnical limitations (Nguyen 2016). Favela

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residents retain a deep appreciation for devices embedded within everyday life, even as they remain aware of the broader picture of technological neglect. These two competing perspectives challenge us to consider why affective attachment at this more intimate level does not negate the breakdowns and failures broadly occurring within the system: residents adopt strategies to render livable the extremely inequitable and uncertain technological environments they find themselves in.

The shared *xingling*—unlike the dystopian and individualistic smartphone experience that Hollywood movies such as *Her* envision—fosters a communal sociality in favelas that emerges from conditions of technological unevenness. Friends gather at the CTCs—one brings a charger, another the data cable, and a third the *xingling* itself—to load data onto and off the phone. In the interlocutors' accounts, the *wired*, material connectors of USB cords bridged to a more joyous and richer social life. *Xinglings* also retain exchange value within the favela by being tradable for other goods and acting as a source of confidence to traverse spaces outside the favela. Returning to Jackson's (2014) concept of repair, through these stories surrounding the mobile phone we can begin to see the outlines of what an "act of care" could look like in the pursuit of liberation. Liberatory care involves a deeply affective and affectionate relationship with what those things *do*, despite everything. Accordingly, Mundane Technologies like appropriations of *xinglings* find themselves embedded within favela residents' social circles and ongoing existence.

The intimate frustration that favela residents experienced with the QWERTY keyboard—and the bodily means by which users displayed these frustrations, punching the keys with force—illustrated a deeply felt relationship with technology. The *pain* of technological failure—of this most basic of devices failing in ways that render it incomprehensible to its users—has yet to be taken up in studies of infrastructure. Here in the LAN Houses and Telecenters of the favela, there is less sublimation of the self and a stronger awareness of just how closely entwined the wider breakdown within the environment is with one's own experience of a particular technology—even as unremarkable one as a keyboard. Just as the durability of the keyboard posed issues, the durability and resilience of digital infrastructure also produce moments of pain and elation in the form of small breakthroughs. This digital infrastructure is always interwoven with the social infrastructure of the neighborhood.

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Looking at CTCs such as Telecenters and LAN Houses—and how they draw patched-together and piecemeal communications infrastructure into a node—gives us more technological negotiations to think through. These negotiations are certain to become the bedrock on which Davis's (2006) envisioned cities of the future will be built. The LAN Houses in the favelas are affected by how others use illegal taps of electricity and telephone lines to maintain their piecemeal technological connections. These connections are acknowledged by the authorities and utility providers only as a drain on resources, rather than an indication of an unmet need. The owners of the LAN Houses maintain some semblance of stability by utilizing a mix of personal relations, informally acquired knowledge, and cheap parts. Here, infrastructure is not *invisible* when rendered normal, as previous understandings of infrastructure (Star 1999) would lead us to believe. Within everyday favela practices, the internet and electrical infrastructure remain constantly in sight. They are always in need of care to successfully support everyday use and practice. This constant attention to the deficiencies of the built environment and the fixes acquired through means outside of legal or traditional avenues are its own stabilizing force.

I believe that this stability is, paradoxically, always contingent and in flux. It depends on the whims of relatives, the (not always sensible) will of utility companies, and the skills of LAN House owners. The infrastructural stability of the LAN Houses' internet and electrical connectivity must be constantly and visibly *produced*. This is qualitatively different from how maintenance is typically conceptualized. Instead of working to keep a system of technologies functioning at an acceptable level or a standardized ideal, maintenance is a constant struggle to *bring forth*—to ensure that relatively reliable power and stable connections exist at all.

This is not to say that top-down systemic infrastructural intervention would solve the problem of oppression in the favelas. These communities have been historically marginalized by decades of social segregation and neglect from the state government and private sector. This neglect does not lend itself to easy solutions. Infrastructural improvements, after all, are the bread and butter of politicians who show up in the favelas seeking the vote during election season, promising things like cable cars to facilitate the transportation of local residents.[8] Waiting for decent infrastructure to

8. The project of cable cars in the favelas of Vitória was announced to the local residents in October 2012, but as of the time of writing nothing was done. For a news article about the project, see Gildo Loyola (2012).

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be delivered from outside may fall too easily into the category of utopian promises. Even if such promises came true, they would likely fail since they wouldn't bring favela residents into decision-making roles, and any attempt to liberate the oppressed "without their reflective participation in the act of liberation is to treat them as objects that must be saved from a burning building" (P. Freire 2000, 65).

While repair has been framed as a process of promoting political action and improving environmental awareness in repair clinics in the Silicon Valley (Jackson 2014; Jack, Chen, and Jackson 2017; Ahmed, Jackson, and Rifat 2015), repair was approached in favelas as a critically necessary process—an act to survive and perhaps thrive. Though Steve Jackson (2014) states that repair fills a moment of hope when bridges from old worlds to new worlds are built, in the favelas this hope is a transient hope—a hope that the beginnings of a desirable life, cobbled together from what the favela has to offer, can approximate the comfort and stability that mark the upper class. Favela residents must develop practices of and rely on their repair work, since what infrastructure offers them is constant breakdown—another forsaken promise. Hence, instead of thinking of such repair work as merely *gatos* or *gambiarras* (or adopting the overtly political understanding of them as hacking in the zone of the hackerspace), I imagine this Mundane Technology as a quiet kind of *caring*.

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3

# COMMUNITY TECHNOLOGY CENTERS AS MUNDANE TECHNOLOGIES

In May 2013, I found myself in the middle of a shoot-out walking to Games LAN House in Bairro da Penha. Having never been in such a situation before, I did not know where to run. I watched bullets shattering windows, people running, trying to find shelter, and children crying. In the midst of the chaos, I just followed the locals. I noticed that a large group of people ran into the LAN House, and so I followed. Once inside, I grabbed a CRT screen to use as a shield. Although I was reeling from the event, I noticed that people were calmer and more relaxed, even though the shoot-out was still happening outside. I asked the people why they were not scared, and Gabriel (seventeen years old) explained, "This LAN House is sacred for the community. No one will cause any trouble in here or will shoot bullets aiming for the LAN House. If something happens, Ronald will close this down and there's no internet or place for us to hangout. It is just like the church and the school down the hill. These are the best places for shelter."

My conversation in the middle of the shoot-out validated one of the most precious lessons from ethnography: follow the informants in order to identify and understand their lives (see Rubel 2003). The aftermath of the unexpected shoot-out made me realize that Community Technology Centers (CTCs), such as LAN Houses and Telecenters, represented something more than just cybercafés or computer labs. They represented safe spaces that favela residents appropriated in order to alleviate oppression in their everyday lives. As Paulo Freire (2000) emphasizes, the oppressed need safe spaces for exploration. In these spaces they could confront the hard social, political, and psychological realities of their existence as they pursue liberation. In the previous chapters of this book, I described favela residents' Mundane Technologies as the appropriation of technological artifacts, such as *xinglings*, and processes, such as repair. In this chapter I expand our understanding of Mundane Technology to include favela residents' appropriation of technological spaces, such as CTCs, to exercise their agency and

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consciousness in order to cope with challenges associated with education, security, poverty, and access to the job market.

CTCs are generally understood as nonprofit, locally based organizations that provide access to digital technologies to groups that can't obtain it in other ways: mostly low-income urban populations. *Community Technology Centers* is an umbrella term that covers a wide range of types of organizations, such as Telecenters and libraries. In this chapter, I expand the understanding of CTCs as a category to include for-profit and local centers such as LAN Houses. Most centers focus on providing access to technology; a public library, for example, may offer a space for computers with internet access but no training. Other CTCs may offer either general or specialized classes—for instance, basic classes in keyboarding and how to use email and popular software applications such as Word, Excel, PowerPoint, and Photoshop. Others are oriented toward providing training that can empower participants to obtain jobs or excel at school (Davies et al. 2003). Some ICTD scholars have approached CTCs as mere spaces that provide digital technology services, while others have focused on how users engage with digital technology (Nemer 2018a). I go beyond the notion that CTCs are just spaces for technology use, instead arguing that CTCs are appropriated by marginalized communities to claim a vital social place. More than *just* digital technology spaces, CTCs—as a Mundane Technology—help people negotiate information-related challenges associated with their everyday lives.

## RETHINKING THE ROLE OF TELECENTERS IN COMMUNITIES

The Telecenters of Vitória were funded by the city government, which contracted the Center for Digital Inclusion (CDI) to manage and maintain the CTCs. CDI was a nonprofit organization specializing in creating and managing CTCs in low-income, rural, and indigenous communities. They maintained centers in hospitals, prisons, and psychiatric clinics, with the intent to strengthen low-income communities by providing access to digital technologies (CDI 2015). In Vitória, two women managed the CDI branch, tasked with negotiating the Telecenters' plans with the city's Telecenter manager. They also hired and trained Inclusion Agents—the infomediaries responsible for taking care of each Telecenter by helping users with their computer needs.

The Inclusion Agents also organized weekly workshops, usually held on Wednesdays from 1:00 p.m. to 2:30 p.m., when they conducted activities

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to help develop Telecenter users' skills. The workshops ranged from technical activities—photo editing, computer maintenance, and formatting CVs—to nontechnical activities, like how to prepare for job interviews and build board games from recycled materials. Workshops were not as popular among the Telecenters' users as free internet browsing. I attended eighteen workshops and observed an average of six to seven people in each. While the workshops were happening, I noticed that the waiting room would always be filled with people, mostly teenagers. I asked them why they didn't join the workshop, and Thais (seventeen years old) sighed and said, "We all have bad experiences with our [public] school. . . . The lectures we attend are terrifying and traumatizing. Why would I want to attend another lecture here in the Telecenter? I'm here to have fun." The idea of having a school-like lecture turned her off because it reminded her of bad institutional learning experiences. In other cases, young adults used the CTC to complete homework and school projects. Despite Thais's distaste for the idea, the CTCs complemented their academic needs. Among adults, CV typing and online job searching were the most popular activities. The Inclusion Agents printed openings from job database websites and glued them on the Telecenters' walls so people could easily read them.

The Telecenters were free of charge for anyone. Users had to bring a photo ID on their first visit so the Inclusion Agents could register them in the system. Users under twelve years old could use the Telecenter if accompanied by a parent or another adult. For people ages thirteen to fifteen years old, access was allowed with a letter of consent from their parents or guardians. If visitors were over sixteen years old, the Telecenter was open to their use. Each user was assigned a Telecenter ID number, which they gave to the Agents every time they returned to any Telecenter. The system stored the users' personal information—date of birth, name, sex, address, and access number—in order to generate a report at the end of the month with basic statistics about who accessed and used the center. The Telecenter manager was mostly interested in knowing where the users lived, so she could report to the city government that the CTCs were serving the local community. However, she said, the system was not developed with the local context in mind:

> I want to know if the Telecenters are serving their targeted communities . . . like the communities around the units, but it is impossible to get that information. The users don't really know their address, neighborhood, or zip code. When they know their address they say, for example, they live in Consolação, but it is actually Gurigica. We can't get the actual address.

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Administrators at Telecenters were unable to collect some addresses because regularization in Brazilian favelas remains an unsolved problem. Keeping favelas in a precarious status requires enshrining the rhetoric and practice of removal as a significant element of public policies (Valladares 2019). Since the many residents of Territory of Good did not own land titles, they lacked formal addresses. Hence the addresses they provided at the Telecenters were literally directions to their homes, such as, "the alley where Joe's bar is and before Maria's bakery" (José, fifteen years old). The address fields were mandatory, so the Inclusion Agents just went ahead with the information provided. Vania, the Inclusion Agent, just did her job as best she could, saying, "There's nothing I can do. How am I going to check this information? Also, we don't have formal addresses here, so I just go with what they tell me. When they tell me their neighborhood [favela or community], I usually look up the zip code on the post office's website, but this is no guarantee that the area they live in is actually how the city sees it."

CDI purchased the data management system used in the Telecenters, which was custom-made by a software company in Rio de Janeiro. Such a system was one example of how technology is frequently developed from a vantage point of those who expect the same technology to function similarly everywhere. This approach is known in ICTD as one-size -fits-all; designers understand the center as the destiny of and model for developing areas. In other words, "the world at large is destined to become 'like' the one under construction in our research laboratories" (Dourish and Mainwaring 2012, 134). But even when the center is close, like Rio de Janeiro, technology developed remotely can produce more problems than it solves.

Each Telecenter was equipped with one printer, one server, and ten desktop computers running Ubuntu, a Debian-based Linux operating system. The computers were connected to the Vitória OnLine Wi-Fi link, which provided the users with open-source, free, and fast internet.[1] Although users were able to access any content or website they wanted, some felt that Ubuntu denied the freedom they wanted. For example, Jefferson (seventeen years old) found the open-source software constraining:

1. The internet speed was 100 Mbps, and there was no blocked or censured website/content.

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> I do not feel free here. This system can't do anything; it asks for the password [admin] every time I want to install something. I can't play any games on Chrome, there's always error messages popping up from the plug-ins and I can't update Java. I wanted Windows, or at least Wine so I could install my favorite games. Who wants Linux to play Sudoku? Is this what you call free software? . . . I feel frustrated and don't want to come here.

Free-libre open-source software (FL/OSS) is seen in the literature as empowering users with full access to the software's code and library, allowing them to adapt the software to their needs (Lerner and Schankerman 2013). But in the favelas, people perceived FL/OSS as limiting their choices. They were interested in the latest games, such as *Counter-Strike* and *FIFA*, which were not supported by Linux. These informants were just overcoming the so-called *first-level digital divide* (Hargittai 2002) and developing skills to seek information and use it in their lives. They did not have advanced technical skills like coding that would let them benefit from FL/OSS. Although CDI claimed to be a supporter of FL/OSS, they had no plans to implement a program or workshops to develop technical skills so users could take advantage of using open-source software. The Telecenters' manager claimed that it was the city's choice to use FL/OSS "simply because it is free and we have to reduce costs by every means." Adopting OSS because it was "free as in beer" (Crowston et al. 2007; see Coleman 2012) may have promoted access to technology due to its low cost, especially in financially troubled areas, but it did not necessarily lead to the "free as in speech" use of the software. This is not to say that favelas residents weren't capable of coding and tinkering with the source code—they just don't find it useful for their goals.

The Telecenters I visited for this study, in São Benedito and Itararé, were open from 8:00 a.m. to 5:00 p.m. during business days. Itararé was at the foot of the hill, as described by the residents, and closer to the city's border with Leitão da Silva Ave.—hence it was the most developed area among the communities in the Territory of Good. Itararé was considered the shopping center of the region, and residents of other favelas walked down the hill to do their shopping there. Its shops included auto repair shops, clothes boutiques, electronics emporiums, sewing services, and restaurants. Itararé had the franchised supermarket ExtraBom and a large public square that the residents called *pracinha*. Here, a farmer's market took place every Wednesday morning, residents played soccer daily, and every evening, people of every group age flocked to the square. Mothers hung out and chitchatted while watching

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their children playing, teenagers played loud music on their *xinglings* as they had their *rolézinhos*,[2] and elderly men played checkers. CIAS, a private hospital owned by UNIMED, one of the largest health insurance companies in Brazil, was located right next to the ExtraBom.

When I asked the informants if they were able to use the hospital, they immediately answered no. Tereza (thirty-two years old) told me that "they [hospital management] don't even employ the people from here [Itararé]. They are occupying a space in our community but don't give anything back. I wish it was a public hospital, so, at least, we could try to use it." They did not understand why the hospital was there, since it didn't benefit them. Despite being the most developed favela in the area, Itararé did not have a public hospital nearby, and the residents felt left out by the government due to the conditions they were living in. Roni (eighteen years old) summarized the residents' frustrations, saying, "Now you can see what it means to be marginalized. If you get hurt, you can't even go to the hospital right next to your house because they won't take you in because you don't have money." Like Roni, Thais feared the institutional barriers of her school. "My school, which is public, of course, is a joke. Anyone can get good grades—we just need to memorize what the teacher says. The teachers don't really care about us and we don't really care about school. It becomes a vicious cycle. The only thing that works here is this [Telecenter]." Thais's testimonial illustrates Paulo Freire's description of the Banking Education, which is commonly adopted in schools throughout Brazil. Banking Education, according to Freire, is an educational model that assumes that the teacher has all the knowledge and the student doesn't know anything. This model creates a vertical relationship in which teachers "deposit" their knowledge into students' heads and, according to Freire, doesn't promote critical thinkers. Rather, it trains students to become passive beings who conform to oppressive structures.

Public services such as schools in Vitória's marginalized areas were precarious and frustrating. Hence, local residents relied on Telecenters to help them to overcome their precarity. The Telecenter in Itararé had a small waiting room, an office for the Telecenter manager, the computer room, a small kitchen, and two bathrooms. A maintenance lab hosted four young adults who maintained and fixed the Telecenters' computers, printers, and networks. The waiting room was as active as the computer room. Users

2. *Rolézinho* means "strolls, hangouts, gatherings."

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waiting for their turn to use the computers chatted about the community, as I observed in a conversation between Andre (forty-eight years old) and Jaciara (nineteen years old).

ANDRE: I'm here to research about my family roots and how they migrated from Italy to Brazil. I heard there's a lot of stuff about Italians who became trail blazers in Brazil. What are you here for?

JACIARA: To do some homework and research for a school project. My teacher wants me to write about the Independence of Brazil. Can you believe the [public] school doesn't have any books to help me? I'll let you know if I come across something about the Italians.

ANDRE: Thank you. Where do you live?

JACIARA: In Bairro da Penha, just after Nelson's barbershop.

ANDRE: Ah! You better be careful, I heard some meetings would take place this evening between some drug people. You know how these things end up. In Gurigica things will be like a grape.[3]

JACIARA: Thanks for letting me know. I won't stay long here and then just run home.

The waiting room worked as an *information ground* where people shared their life experiences, technical expertise, and awareness of events in the favelas.[4] It was a social space where users had casual interactions that led to meaningful exchanges: female teenagers grouped around a *xingling*, pushed the phone's buttons, and discussed how to take selfies until they figured it out. Adults exchanged information about social programs provided by the government—such as Social Driver's License (CNH Social) and ProUni[5]—while young

3. *Grape*, or *uva* in Portuguese, was slang used by favela residents to refer to tranquility and security.

4. As defined by Fisher, Landry, and Naumer (2006), "an Information Ground is an environment temporarily created when people come together for a singular purpose but from whose behavior emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information."

5. Social Driver's License (CNH Social) was a social program in which low-income adults could apply for a grant to pay for their driving school and license. The process of getting a driver's license can cost up to US$1,000.00. ProUni is a program that granted full and partial scholarships for low-income people in a private institution of higher education.

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men scheduled *peladas*[6] and tried to get on the security guard's computer. Teenagers felt comfortable and safe, as Marcos (twenty-one years old) described it. "The Telecenter is the best thing we have around here. . . . I always bring my *xingling* to transfer some music. . . . You know, you realize you are at home when your *xingling* connects automatically to the Wi-Fi." Though Telecenters were hardly a place for privacy, Marcos described them as "home" because he could relax and listen to music with friends.

What happened offline shaped the way users got online. Teens like Mariana (sixteen years old) vividly believed that Telecenters were about more than just access to technology. "I have a computer at home, but it is so boring to stay home alone. Here I have my friends, we can talk, play, and take photos," she told me. "They help me with stuff I don't know, and I help them with things I know. . . . So much happens outside the internet, in real life, that influences how we actually use the internet." True to her claim, my visits to Telecenters were saturated with social interactions. For example, while teenage girls used Facebook chat, instead of having the conversation with just the person on the other side of the screen, they often debated the topic of the conversation with each other in the Telecenter before responding. I also observed loose acquaintances develop a closer relationship because they helped each other. Mario (thirty-two years old) and Sergio (twenty-six years old) were regular users of the Telecenters, but their interactions had been limited to greeting each other. In July 2013, Mario saw Sergio accessing the ProUni website and asked if he could help him sign up for the program. One month later, they were meeting twice a week to study for the *vestibular* university entrance exam. Such appropriation of the Telecenter illustrates Paulo Freire's education for liberation, which happens in a dialogue between two humans. It is a collective construction in which teachers and students are engaged in a dialogical process open to mutual learning. Freire saw learning as a liberating, socially engaged activity, writing that "no one teaches another, nor is anyone self-taught. People teach each other, mediated by the world" (2000, 80).

## BEING WATCHED AND FEELING SAFE IN TELECENTERS

Each Telecenter had a male security officer who sat at a desk in the waiting room and monitored security cameras on a computer screen. The officers'

6. *Pelada*, a Portuguese term to refer to pickup soccer, means "naked" (in a female form), in reference to the naked and rough conditions that fields were usually found.

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duty was to maintain order in the Telecenters and intimidate thieves and troublemakers in order to keep them out. Their computers were also hooked up to the Telecenters' network, so they eventually got on the web.

> Although we are in an area of risk, I have never had a problem with people looking for trouble. This is not as stressful as I thought it would be; however, I need to keep my eyes always open and checking the [security] cameras. When the Telecenter is not as busy, I get online, check my Facebook and play *Social Wars*. I play against these kids, and now that they realized that I could get on Face,[7] they always try to get on my computer when they run out of time. I always tell them to stop; otherwise they will get me in trouble. (Security officer in Itararé)

All this security came at a cost. The city government paid a high price to keep all twenty Telecenters running in high crime areas. Looking through the Telecenters' financial books, I saw that the city spent approximately R$120,000 (about US$50,000) each month to maintain the Telecenters (facilities rental, Inclusion Agent salaries, and utilities). They also paid R$300,000 (about US$125,000) per month to outsource security to a local company. That is not even counting the cost of security cameras, which I did not see budgeted but only observed on-site. Due to the inefficient state presence in high crime areas, the city had to pay for security instead of funding at least fifty more Telecenters.

The informants did not voice privacy concerns regarding the security cameras. When I asked them if they felt that their privacy was being invaded, their answer was a unanimous no. Rodrigo (twenty-one years old) said that "the security guy and these cameras are intimidating to those troublemakers. Instead of feeling that I'm being watched all the time I actually feel free and safe. I can be myself." Instead of being paranoid about visible cameras, he was "really afraid of the invisible cameras, which are the eyes of drug traffickers out at the streets. We have to always behave differently, like we have a ghost watching us." Users like Rodrigo were in favor of Telecenter cameras because they perceived them as keeping drug cartel members and troublemakers out. As discussed in the literature (see Blanchette and Johnson 2002; Gregory 2010), security cameras can be used as tools to force people to monitor their own behavior. However, in the Telecenters, cameras were perceived as tools that allowed people to feel comfortable, have protection, and be themselves, as Rodrigo mentioned. It was the "invisible

7. Brazilians often refer to Facebook as simply "Face" in Portuguese.

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cameras"—the eyes of cartel members—that created the real panopticon feeling for users.[8] A conversation with the manager of the Telecenters also confirmed that "they [security cameras] are here to protect the users from the violence that happens outside. The images are stored in the local server and not shared with anyone, unless required by court." The cameras were not to monitor routine visitors.

Inside the computer room in Itararé, Inclusion Agent Vania approached security cameras differently by enforcing Foucault's concept of "discipline and punish." Teenagers often begged Vania to let them stay longer on the computer after their time was up. She often let them stay longer, except when the Telecenter was busy and the waiting room was crowded with people waiting to use the computers. At these times, Vania would show one of the cameras to the teenagers to get them to leave, telling them, "My manager is watching us; if I let you stay she will yell at me and you. . . . You could get suspended from here." The Inclusion Agent was not pleased to enforce the Telecenter rules, telling me, "I feel bad that I have to lie, but that is the only way I found to get them to leave. They know that I always let them stay longer when the Telecenter is not busy, but they always try to squeeze in every possible minute as possible on the computer." The thought of being monitored gave her a diplomatic way to ask them to leave, even though she would prefer another solution. In these ways, the materiality of security cameras affected the behavior of Telecenter users, whether by making them feel safer or giving Inclusion Agents a way to enforce the one-hour reservation policy. Either way, the users did not have privacy concerns that security cameras usually raise in places like the US (see Dourish and Anderson 2006), where notions of surveillance are predicated on individualistic technology use built on frameworks of rights. The interactions of favela residents with cameras did not evoke the same ideas due to their understanding of the role of these artifacts in the CTCs.

Some users found a way to exceed their one-hour slot limit by simply going to another nearby Telecenter. I noticed that people from the Territory of Good frequented both Itararé and São Benedito. These Telecenters were about one mile apart, so it took about fifteen minutes to briskly walk from one to another. When I talked with Felipe (sixteen years old) about his visiting habits, he laughed and said, "There's no stopping me. . . . Isn't this

8. See Foucault (1977) for more about the panopticon.

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our right? I mean . . . aren't the Telecenters for us? . . . So I'm not doing anything wrong. I get here, I play games, I meet friends, what else could I ask for? The walk from Itararé to here [São Benedito] is not so bad . . . when it's not raining."[9] Even though the teenagers had to cross boundaries set by the drug cartel, they thought it was worth the risk to stay close to their friends and inside the Telecenters.

São Benedito was located at the top of the hill. Unfinished homes, straight alleys, a small square, dirt streets, bars, and small markets comprised the favela. As I discussed in chapter 1, a drug cartel chose São Benedito as its territorial base due to its geographical advantage. It was easier for members to see when rival gangs or cops were coming up the hill, giving them more time to attack or hide. Another advantage was that they could attack with a top-to-bottom approach, making it difficult for rivals to advance up the hill. For this reason, other cartels were constantly trying to take control of the valuable top of the hill—hence the regular shoot-outs. The São Benedito cartel maintained its territory because it did not want enemies lurking. Everyone who came in or out was questioned; I got questioned several times about my intentions there and the outcomes of my research, since the cartel was not used to having researchers in its territory.

The Telecenter in São Benedito was also protected by the cartel, which is why it was the only Telecenter among the twenty in Vitória that did not have security cameras and personnel. The Telecenters manager explained, saying, "Right after we opened the Telecenter in São Benedito, the cartel told the Inclusion Agent, who is from the community, to get rid of the cameras and security. Otherwise, they would close the center and we wouldn't have peace. So far we haven't had a problem there." Patrick, an Inclusion Agent, was born and raised in São Benedito. He was a well-known and charismatic figure among the residents, and everyone respected his authority inside of the Telecenter. He told me he only had one incident in the CTC.

> One time, the Telecenter was really busy and I had several people waiting to use the computers, then I asked this kid to leave the computer because his time was up. He did not say a word, just pulled his shirt up and showed me his gun. I couldn't do anything, so I just went back to my seat. A bunch of people saw the scene and was also terrified. . . . All I know was that someone that was here that

9. *Raining* here means "raining bullets" (gun shoot-outs).

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> day told this story to some cartel members and that kid never showed up again. The cartel doesn't allow any of their members to come here; they understand that this is for the community and don't want anything happening in here.

Patrick went on to explain that the cartel knew its constant conflicts upset the residents. Hence, it wanted to maintain order by strategically keeping places—such as churches, shops, and the Telecenter—safe for the community. Having the residents unhappy and protesting against the cartel's presence would give the cartels another problem to deal with. A frustrated populace could weaken the cartels and make them more vulnerable to rivals. Even though the residents did not approve of the war environment created by the cartel, they appreciated that Telecenters were left out of their disputes. Jussara (thirty-one years old) expressed her frustration by saying, "What can we do? It seems that God has turned his back on us . . . so we have to rely on [the cartel]. [We] just pay attention where we have gone to. . . . We have to be thankful because they are letting us go to the Telecenter. It is safer than my house."

## THE BOTTOM OF THE SOCIOTECHNICAL PYRAMID

The Telecenter in São Benedito faced a different situation than the one in Itararé. The drug cartel members did not allow cameras in the Telecenter because they served as the "invisible cameras" that protected the CTC *and* watched residents on the streets. Violence was not the only problem faced by São Benedito residents. Although being on the top of the hill was strategically beneficial for the cartel, the favela's residents often lacked basic services. Access to water, electricity, education, and internet was much rarer on top of the hill than at the bottom. CESAN (the water company) and ESCELSA (the power company) did not invest in the infrastructure, which is why São Benedito residents had to rely on illegal makeshift pipes and wire taps; they were left with no choice. Ricardo (twenty years old) put his predicament as "not a matter of being illegal; it is a matter of surviving."

The impoverished situation placed additional burdens on the Telecenter in São Benedito. The internet was brought to the CTC by a long-range directional Wi-Fi antenna that was located at the Telecenter of Itararé. The antenna boosted the Vitória OnLine signal so it could be received at the Telecenter in São Benedito, which shared the internet among their computers. This system was prone to failure. In June 2013, the receiving antenna

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fell from its base in heavy rain and broke. The Telecenter was left without internet for a whole month, even though the residents and Inclusion Agent constantly requested a replacement. Patrick, the agent, complained that "everything up in here is hard. I'm not surprised that it is taking them [city government] to fix this. Every time a computer broke down, it takes ages for someone to come up here, pick it up, and fix it." When I questioned the Telecenter manager, she described how she could not do much beyond requesting a replacement antenna through the city government. She believed that the problem was more legal and bureaucratic than technical.

> It is not that simple. We don't have access to the money to buy a replacement antenna. We have to start a licitation issuance process, so several contractors can bid an offer, and just after that, the government will give us the money to buy the cheapest antenna that meets with all the requirements. The same thing happened to CDI, for us to contract them, we had to start a similar licitation issuance process.

The licitation issuance process, dictated by law, was designed to avoid inappropriate use of public money. It applied to every branch of the government, including institutions and agencies funded with public money. The arduous bureaucratic steps needed to comply with the licitation issuance required time and effort. The episode with the internet antenna was just one example of how public administration in Brazil treated favelas. As Spilki and Tittoni (2005) explain, the incompetency of the politicians and the inefficiency of the bureaucratic state of Brazil perpetuated the dependency of the poor on the government. They suggested that bureaucracy was also the reason why hospitals and schools did not have updated resources.

During my visits in May 2013, the ten computers in the Telecenter in São Benedito were busy most of the time. However, in June 2013, the number of computers was cut in half, to five. Despite the lack of internet, the CTC's waiting room was still busy with people meeting up, playing board games, and asking if the internet was back. In the beginning of July 2013, the Telecenters' maintenance technicians finally fixed the broken antenna. However, it was not able to deliver the same internet speed as before. The internet was slower, and no one could really explain why. Knowing how things worked with the government, Patrick decided to not file another complaint. He believed that making waves would result in a wait for a new antenna, and perhaps no internet at all. "If I complain again, they will take

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this antenna down and it will be another month without any internet until they can get back to us. But I've noticed that slow internet is what keeps people away from the Telecenter. . . . Forget rain, violence, and walking up the hill." During the time of no and slow internet, some users of the Telecenter in São Benedito used the CTC in Itararé instead. Other users, like Susana (twenty-two years old), were simply frustrated, without a way to communicate online.

> I work at the small restaurant by the bus stop; I only have one hour to come here [Telecenter in São Benedito]. But it pains me to see the internet so slow. . . . I spend about one hour to just check my email. I can't do much. I come here to talk to my sister who lives in Bairro da Penha, and now I can't. . . . It's been almost one month without news from her.

The experiences of São Benedito residents in the Telecenter mirrored their overall life experiences. They often felt frustrated with the public services provided and saw themselves at the mercy of the social conditions they lived in, as summarized by Felipe (sixteen years old).

> See, this is just a taste of what we have to face in our everyday life in São Benedito. This is what it means to be marginalized. The Telecenter is here to help us, and the Inclusion Agent does so much for us. But unfortunately, it is still us that face slow internet, you know, poor internet for poor people, politicians that only show up when they want our vote, cops treating us like shit and criminals, and traffickers that pretend to be fighting for us.

Users in São Benedito felt neglected by the government, and such exclusion reinforced their desire for a better life. The life conditions experienced by the ones on the bottom of the pyramid—such as the residents of São Benedito and Itararé—were recognized by organizations working to empower them. The World Summit on Information Society in 2005 advocated for the application of technology to become one of the prioritized paths to fulfill the Millennium Development Goals (MDGs).[10] Due to the short timescales and pressure to show tangible delivery, Telecenters became a quick, off-the-shelf solution that could be replicated in developing countries' poor communities (Heeks 2008; Chouna 2013). Such a one-size-fits-all model has been heavily criticized by scholars (see Gurstein 2007;

10. According to Prahalad (see Heeks 2008), the bottom of the pyramid is the three billion people who live on less than US$2.00 per day.

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Prado 2010) because it is often plagued by low utilization and an indifferent response from receiving communities. A universal solution approach also imposes preexisting designs with the expectation that the poor will adapt to them. This paternalistic perspective often prevents communities from organizing themselves to develop solutions.

Although these critiques and assessments of Telecenters have some validity, it would be unfair to call CTCs worthless. Most studies on Telecenters have overemphasized digital technologies as the drivers of empowerment and have been based on quantitative surveys of users. Both of these approaches provide a limited understanding of the social and technical roles such centers have in poor communities (Kleine 2013). The Telecenters were not an ideal solution to the issues faced by favela residents. However, they still were spaces that residents appropriated as their Mundane Technology so they could respond to community needs and pursue personal goals. The Telecenters not only provided their users with a myriad of social encounters and technical services but also amplified the tensions, resistances, and struggles lived by favela residents. Approaching the appropriations of Telecenters as a Mundane Technology allows us to study digital technology beyond its technical aspects and contribute to the literature that understands them also as social spaces (D. Miller and Slater 2000; Burrell 2012; Kleine 2013; Nemer 2018a).

In the ICTD literature, Telecenters were perceived as a failed innovation model for two reasons (Heeks 2008, 27). First, they were not sustainable. Telecenters failed to deliver and survive, which prompted concern with ensuring the longevity of such projects. Second, they were often buoyed by hype and uncorroborated stories, which fostered a new interest in objective impact evaluations. These evaluations attempted to measure whether Telecenters promoted the growth of local economies, increased employment, and improved standards of living. However, such an approach represents a technologically deterministic view of universal access to digital technologies "leapfrogging" sequences normally associated with traditional developmental stages (Ayoung, Abbott, and Kashefi 2016). Such an optimistic and naïve view may also underlie assessments of the adoption of Telecenters (Krishna and Walsham 2005). Therefore, I believe that failure was embedded not in the Telecenter's model but in how sustainability and evaluation were conceptualized and formally defined by policymakers and funders. Their evaluations were too narrowly focused on the economic returns of

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Telecenters, rather than embracing an expanded understanding of them as a sociotechnical Mundane Technology.

The Telecenters of Vitória were concerned with success because the city government was demanding such economic and objective impact evaluations to justify funding them. However, the Telecenter manager was not able to deliver statistics.

> Every year I need to write a report to the city government justifying why the Telecenters should stay open. The number of people who access them is not enough; they want to know how much money the Telecenters are bringing into the community, the skills people are learning, how many jobs people are applying to and if they are getting hired . . . all these in numbers. . . . There's no way I can translate the rich experience that the users are having inside the Telecenters in statistics and percentage. Every year I have to face the same struggle. . . . They [politicians] don't understand that the main benefits don't always come as money. . . . If the Telecenters close down, the marginalized communities will become even more marginalized.

In this section, I describe why a sole concern with economic impact measurements ignores the value of Mundane Technologies to promote human agency and alleviate sources of oppression. Favela residents occasionally used Telecenters to improve their economic condition by seeking and applying to jobs. However, these activities were not the main purpose of their visits. They approached Telecenters as a space in their communities where they felt safe, turned casual relations into relationships, and participated in *information grounds*. Policymakers and government officials were focusing on what the Telecenters were not mainly used for, which makes it impossible to evaluate how they benefited the community. I concur with Michael Gurstein (2011), who suggests Telecenter funders believed that once the initial investment had been made in these centers, they would magically transform into "social enterprises." Funders tend to believe that Telecenters could get enough revenue from their local communities to cover access, rent, salaries, and repairs.

> Governments are not only unrealistic, but they are deeply hypocritical in requiring communities in which they previously made these investments because of their overall lack of resources, to somehow now come up with the resources to support these facilities. One additional observation, Telecentre funders repeatedly confuse the issue of Telecentre utilization rates with the issue of funding and sustainability. . . . Telecentres have or at least should have the mission of providing internet enabled

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> services and opportunities for access and use to those otherwise unable to obtain such access, make such use and thus achieve a degree of digital inclusion.

According to Gurstein, calls for greater sustainability are misplaced, since Telecenters serve as spaces to alleviate problems caused by the lack of investments by the government. In 2014, Brazil passed law 12.965, Marco Civil da internet (Brazilian Civil Rights Framework for the internet), which declared access to the internet as a right to every citizen. Thus, the internet was reclassified as a universal service that every Brazilian citizen has the right to access, similar to how education and health care have been classified in the country's constitution. However, in Brazil, the focus of the debate about public schools and hospitals centers on improving the quality of their services and stopping embezzlement rather than making these spaces sustainable. It is understood that the government is responsible for using taxpayers' money to provide such facilities to its citizens—but not as an investment vehicle. With this in mind, why are Telecenters being criticized for being unsustainable? Even drug cartels saw CTCs as vital spaces for the communities, so why didn't the government? One of the goals of this book is to call for a reformulation of how politicians perceive CTCs and who is responsible for keeping them running for populations in marginalized communities. I believe it is necessary to think of realistic ways to steadily maintain the CTCs without being so dependent on unstable governments.

## LAN HOUSES: CAN A MUNDANE TECHNOLOGY BE FOR-PROFIT?

The LAN Houses I visited in the Territory of Good were located in Gurigica (Gueto LAN House), Itararé (Point LAN House), Bairro da Penha (Games LAN House), and Jaburú (Cyber LAN House). Gurigica and Bairro da Penha were set in the middle of the hillsides, between São Benedito and Itararé. These communities presented similar geographic characteristics; they were heavily populated and had all kinds of houses, from shanties to three-story brick houses. Walking into these favelas gave the impression that every space was taken up by houses. The unplanned settlement led to the formation of narrow, endless alleys that sprawled across the entire hill like a giant spiderweb, connecting the bottom of the hill (Itararé) to the very top (São Benedito). One of the few differences I noticed between Gurigica and Bairro da Penha was that the latter had a very tense environment, since the drug cartel there was in constant war with the cartel settled in São Benedito.

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The LAN Houses were owned by local residents and located in spaces adjacent to the owners' houses. Gueto LAN House had five desktop computers, two inkjet printers, one Xerox machine, and two first-generation PlayStations, each hooked up to a small TV. Lisa maintained the space during the day, and her husband, Rogério, helped in the evenings. Rogério was also in charge of the computer and network maintenance. During the day he worked as an office boy for a local bank. Office boy is a common occupation in Brazil in which the person performs several tasks related to office work, but mainly delivers objects of value or picks up documents. At Games LAN House, Ronald took care of the grounds and computers, while his wife helped with printing services, burning CDs, and typing CVs. Games LAN House had nine PCs, two Xerox machines, and four video game systems (three PlayStation 1s, one Xbox) hooked to one TV each. Cyber LAN House had three computers and one printer; Point LAN House looked more like a traditional internet café, with ten computer stations, two printers, and a service desk where Luis helped people find specific websites, burned CDs, and fixed computers.

LAN Houses were buzzing with activity during the day. People were coming and going, gathering in the middle of the room, chitchatting, buying one-hour slots, and requesting photocopies. I never saw the LAN Houses completely empty; there were always people purchasing something or just hanging out, playing *FIFA* on PlayStation while jovially pushing and punching each other. The space and environment of the LAN Houses replicated the favela lifestyle. The walls were decorated with posters of their favorite games and local business flyers—a very different appearance from similar centers in other countries, which impose a particular vision of how they should be used. In *Invisible Users*, Jenna Burrell (2012) describes Ghanaians having a different approach to internet cafés—decorated to give their consumers a sense of being in the Global North (US or Europe).

In LAN Houses, computer users demanded attention from the owners because they needed help finding specific websites or transferring files from the web to their pen drives (USB flash drives). Thus, help from the owners' spouses was constantly demanded in order to properly serve the users. LAN Houses were more accessible to the favela dwellers than Telecenters because they were inside residential areas. As I described earlier, LAN Houses were rooms built off the owners' houses, whereas Telecenters were located at both extremes of the hill. In Itararé, the Telecenter's area was

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mostly commercially oriented, and in São Benedito it was located away from the houses and the base of the drug cartel. LAN Houses were opened from 8:00 a.m. until 9:00 p.m. every day. Although these centers were geographically more accessible to the residents and stayed open for a longer period, the cost of using the technology was a factor that affected people's access, as mentioned by Rafael (seventeen years old):

> We are all poor here; it is not like we have the money to stay on the internet or video games all the time. I try to save my money as much as I can, and when there's money left, I always come here [Gueto LAN House]. I come here about three or four times a week but get on the computer about twice. What I like about the LAN Houses is that they have Windows; I can play *Counter-Strike* [CS] and it doesn't crash as much as the computers in the Telecenters. . . . It's not like I don't like the Telecenters—I think they are great and just as fun . . . especially because they are free. That's where I do my homework and watch YouTube. But when I want to have fun, I come here to play CS.

The favela residents did not perceive LAN Houses and Telecenters as being in competition. Instead, they saw them as offering complementary social and digital experiences, with different operating systems, opening hours, and locations. In LAN Houses, the PCs were equipped with old, large CRT and flat screens and pirated versions of Windows XP. Luis, the owner of Point LAN House, mentioned that he tried to use Linux before, but the users did not like it. He said that "the people hated Linux; they found it hard to use. It was also hard for me to keep the machines updated. Every time there was a major update, which would significantly change the layout of the system, it caused lots of complaints from my customers."

Lisa similarly tried open-source software (OSS), complementing Luis's observations by questioning the business viability of OSS and original copies of Windows. She told me, "I tried Ubuntu here, but their word processor is bad. Have you tried BR Office? It crashes all the time and it constantly requires updates. My internet can't afford to update stuff this often. I find MS Word to be the most reliable." Software and cost remained a persistent concern for her. "Also, my users' favorite game is *Counter-Strike*, which doesn't work on Linux. . . . I can't afford to buy legal copies of Windows; they are too expensive. I wouldn't be able to keep my business open."

The owners did not let me know how much money they made per month with their LAN Houses, but they mentioned that they were profitable. They made enough money to "get by" and live an "acceptable life."

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Ronald described his situation: "The money I make here, I can pay my bills and save some. It's not like I'm rich or I can leave the favela, but I can't complain about my economic situation. [The money] stays here in the community anyways. . . . I buy all of my stuff here in the little markets."

According to them, original copies of Windows would not be financially feasible for their centers; a single original Windows copy was priced at R$650.00 (approximately US$270.00 at the time). Rogério and Ronald mentioned that they acquired computer and network maintenance skills by watching online tutorials and spending time tinkering with machines. As I observed, they also provided maintenance for favela residents. People said they had computers at home, with some mentioning a dial-up internet connection, and all relied on LAN Houses to fix their PCs. Creuza (thirty-two years old) described her gratitude for this service by saying, "I'm really glad Lisa and Ronald are around. . . . My kids break this crap [computer] all the time. . . . I don't have the money nor the time to go to Reta da Penha [a wealthier area with formal computer repair shops] to fix it." With an ironic laugh, she asked, "How am I supposed to bring this encumbrance [CPU] in a bus packed [full] of people, travel for forty-five minutes, spend all my money and still make it to work? All in one day? Life is hard . . . even when you have this magical technology."

Expanding LAN Houses to also be repair shops was an opportunity that both owners saw balancing their desires to help the community and have an extra source of income. Ronald, owner of Games LAN House, said,

> Nowadays everyone can buy a computer, especially because they can buy it in installments and pay it in forty-eight months. The problem is that they don't know how to use it properly. . . . People would come and ask me if I could fix their computers since I maintain the computer at my LAN House. I saw it as an opportunity to broaden my business. . . . Now I get computers with a thousand viruses, fried boards . . . and if it wasn't for me they wouldn't be able to fix their computers since I charge them a fair price and usually recycle boards.

Scholars and practitioners (see Mori 2012; Soares and Joia 2014) have stated that the business model of LAN Houses was fated to disappear due to the fast spread of personal computers and the internet. Both were becoming cheaper and more accessible, even to the poor. However, besides being important community centers, LAN Houses have proven adaptable to market needs. In the early 2000s, these centers were solely focused on computer

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and broadband internet access (R. Lemos and Martini 2010). Throughout the years they have expanded their business to provide access to imported video game consoles. At the time of this research, LAN Houses were not relying on technology access as their only source of income but had expended to bring broadband access to nearby houses and provide repair and maintenance services to the community's technology. They become the de facto internet service providers of the favelas.

### LAN HOUSES AS SAFE SOCIAL PLACES

LAN Houses were not only one of the community's main gateways to the online world—they were also places where the locals socialized and found safety from the constant conflicts involving the drug cartel. Despite being different from Telecenters, LAN Houses were also appropriated by favela residents as their Mundane Technology. LAN Houses were seen as a sacred space by everyone. The mothers from Territory of Good preferred to leave their children playing games there rather than unattended at home or playing in the streets, and they even hosted birthday parties there. As Magdalena (a thirty-one-year-old domestic worker) described it, there was a high risk of teens being recruited by the local drug cartel. They believed that criminals did not go into these locally owned facilities because they perceived them as being beneficial to the community. She said:

> I don't have the money to pay for a babysitter to take care of my children. My life is rough, you know; their father got lost in life and I have no one to help me. I work all day to put some food on the table. It breaks my heart to know what could happen to them. I can't leave them unattended. I'm more relieved to know that they stay in the LAN House. I give them some money, enough for one hour to play on the computer, but then they hang out with other friends in there.

The case of Magdalena is representative of many women domestic workers living in favelas. Existing since the early years of Brazilian society, domestic work originated in the exploitation of slave labor during the colonial period. Although the country's constitution now recognizes domestic work as a profession and workers enjoy the same rights as other workers, the sector is still predominantly composed of women who are poor, Black, and undereducated. Domestic workers, usually considered the country's poorest-paid women, have little formal education, and their cultures and ethnicities are stigmatized by the hegemonic system of values (Brites 2014).

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An occupation dominated by women (about 92 percent) also registers very high levels of informality, meaning that 70 percent of them don't have their work cards signed by their employers (Elias 2019). As claimed by the Brazilianist and historian Brian Owensby (2001), domestic work represents a central element of the classist structure of Brazil's society since it affirms the identity of the middle class, marking a distinction between a class that should not be engaged in manual labor and another that is destined to take care of it. LAN Houses, as Mundane Technology, became safe playgrounds where women workers left their children so they could face subalternity and receive a modest paycheck for taking care of children from upper classes.

Other services provided by LAN Houses also went beyond providing internet access. The locals could pay their utility bills, buy cell phone recharge cards, play video games, print documents, and make copies. Gueto and Game were centers of the community in other ways, too; every day the mailmen dropped off a box in the LAN Houses with the mail of the people that lived in the area. One of them explained why he could not deliver the mail directly to people's homes:

> The address written on the mail does not correspond to the actual place where the addressees live. The people here don't have formal addresses so they just give out an address of places close by hoping that their mail will reach them somehow. I have been working in this area for a long time, so to make their lives easier I just drop everything here in the LAN House so they come to just one place.

The LAN House owners had a drop box where people came to check for their mail. Yet, the owners said they did not have the time to sort the mail. Lisa laughed and said simply, "It is not my job and I don't have the time for that. . . . Also it is not necessary, people here in the community trust each other; no one will steal anyone's bills and pay them." Although Lisa was joking, her statement referenced the sense of belonging that favela residents shared. Residents felt they mattered to one another and to the group, and they shared a faith that their needs would be met through their neighborly commitment.

The LAN Houses charged the users by the hour to use the computers and video games. A single hour cost around R$3.00 (approximately US$1.75), with another R$2.00 (US$0.75) for Wi-Fi internet. Jefferson (seventeen years old) was a frequent user of LAN Houses who spent most

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of his allowance playing *FIFA* on PlayStation. Recently, his main activity had been chatting with his friends on Facebook because, he said, "I can't go to talk or play soccer with my friends that live up on the hill or at Bairro da Penha. It is too dangerous for me to go there. . . . There are always shootings going on." The constant conflicts between drug cartel members in the region kept the people from hanging out in the streets and alleys. Yet, the favela residents found a way to break the boundaries set by the drug cartel by maintaining their social relationships in the LAN Houses.

Adults mostly visited LAN Houses for the same reasons they visited Telecenters: to type their CVs, seek jobs online, and use e-government services. For example, Fátima printed her criminal background document so she could visit her relatives in prison. "My nephew is in jail in Viana, and my brother can't visit him because of his background, so I end up being the spokesperson between them. . . . Living here in the favelas doesn't make me feel part of Vitória, but when the web page finds my information [background check system] I feel that I'm still part of the city." Adults sought out other online services such as filing taxes and applying for government documents, but the limited number of services provided by the government, such as issuing criminal background certificates or booking vaccination appointments, was often criticized for being inflexible. Lourdes (forty-two years old) told me, "Our lives are already filled with problems and the government could at least try to make things easier. . . . I can't afford to take a day off from work so I can go to São Lucas [public hospital] just to schedule a doctor's appointment."

Despite the limitations of e-government services, LAN Houses, just like Telecenters, became the point of contact between central governments and these communities. Favela residents worked long hours and depended on inefficient public transportation. They had to leave home very early and return late. Their busy schedules left no time to go to the city hall to deal with bureaucratic services, as mentioned by Jair (forty-nine years old): "I lost my ID last month and I haven't found the time to go to the civil police office, which issues a new ID. . . . My boss won't let me take a half day off to go there and deal with this." Jair's situation was quite common among favela residents, who often couldn't find a way or the time to deal with anything that needed to be resolved by the government and had to rely on the e-government services available at CTCs.

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### BRINGING HOMEWORK TO THE LAN HOUSE

LAN Houses were also perceived as fundamental extensions of the public schools in the area, because students got together after school hours and used the computers for their assignments. The computer rooms in the schools were not open for the students after class time and were only available upon the teachers' request. The computers were also obsolete, having been recycled and brought in from departments that belonged to the city government. The internet connection was slow—João (seventeen years old) reported that a 1 Mbps connection link was distributed to eight computers usually shared by thirty to forty students. He described his frustration with the limitations: "The classes in the computer lab are useless. I can't do any research; it takes forever . . . and to do research for my homework I have to go to Gueto LAN House. Here, at least, I can find help online and offline."

Children from different ages and school grades developed a peer-learning process where they sat in groups of four or five in front of a computer and did their homework together. First they debated their questions and studied topics with each other. Then they would get online only if they could not figure out an answer or to clarify the topics they were studying. They were able to afford this peer-learning process every day because they split the cost of using the computer—usually a fraction of one hour. Although those children did not engage in dialogic learning with their schoolteacher, as Paulo Freire (2000, 72) proposed, they still created the conditions for dialogue among themselves. According to Freire, their actions fostered the epistemological curiosity of the learner, promoting free and critical learning.

Adults also benefited from the educational potential of the LAN Houses. Mr. Alvares (fifty-seven years old) was a frequent customer of Point LAN House. However, he was mostly interested in services other than computers. He was illiterate and initially unmotivated to use the internet. When I asked what he did there, he said, "I would come in to meet people and buy cell phone recharge cards, but after watching and listening to what my friends were doing here [Point LAN House], I became interested." But to accomplish his goals, Mr. Alvares had to overcome the first obstacle: learning how to read and write. Luis, owner of Point LAN House, admired his persistence. "It was a hard task to help him, but he was always getting help from me and his friends that were on the computers next to him. . . . Now he is able to communicate with his grandchildren on Facebook."

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Although the benefits afforded by the LAN Houses may have turned them into shrines from the perspective of favela residents, the businesses still faced serious problems that could jeopardize both them and the community. Lisa described time-based challenges that users confronted, noting that "the drug cartel is setting a very early curfew for the community, so the people can't leave their homes and use the LAN House after school and work." Because of the current poorly built infrastructure (discussed in the previous chapter), the internet providers were not providing fast broadband connections in the favela. Luis and Lisa contracted a 3 Mbps internet plan—the fastest available to them—for their LAN Houses, but they had to share the connection with at least five computers. According to Lisa, users didn't complain, for the most part, because it was the only internet access they had. However, "the problem is when I have to make a security or Windows update. It takes forever to update every computer I have. It is dangerous because I have to stay in for the whole night and expensive since I have to pay for electricity." It was unwise to have any business running after the curfew set by the drug cartel.

Despite these issues, LAN Houses proved to be Mundane Technologies that afforded safety, citizenship, social relationships, and even education. The cases presented here illustrate just some of the achieved promises of LAN Houses. So far, literature on CTCs has labeled such private access venues as sites for individuals to simply interact with and through the internet. However, as I describe, LAN Houses served the community by helping residents to achieve broader social goals and activities. A limited understanding of CTCs is a consequence of the literature focusing almost entirely on the United States and a fairly narrow definition restricted to initiatives from government and nonprofits. For example, Davies et al. assert that CTCs are "generally nonprofit, locally-based organizations that provide IT to groups that do not get access to it in other ways" (2003, 7). However, other scholars and practitioners have defined CTCs in a broader way to include community-oriented for-profit ventures. For example, Servon and Nelson state that "broadly defined, CTCs are community-based efforts to provide computer access and training to disadvantaged populations that would otherwise not have such access" (2001, 280). For them, an essential characteristic of CTCs is that they do *not* originate from a top-down initiative. Instead, "in the absence of comprehensive public or private efforts to close the technology gap, community technology centers have emerged at the grassroots level."

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A similarly broad vision of CTC is espoused by CTCNet, a network of organizations and institutions that adopted that name in 1996 (P. Miller 2000, 212). Among their members, they include not only "non-profit organizations, churches, academic institutions and the like" but also "training centers, internet cafes, shelters and such" (CTCNet n.d.). One may argue that LAN Houses could be financially exploiting an already exploited area. However, LAN Houses were owned by favela residents, and the profit made from them seemed to stay in the communities, as mentioned earlier by Ronald, who said he would "buy all of my stuff here in the little markets." I argue that favela LAN Houses are the functional equivalent of CTCs. As I have articulated in this chapter, they are Mundane Technologies that afford favela residents the ability to alleviate sources of oppression and to mobilize themselves toward a quality of life they desire. LAN Houses were social spaces that went beyond the technical: they offered not only computer access but also opportunities for informal instruction and mentoring, opening up opportunities for skill building that would not normally be provided to the favela population. This is illustrated profoundly in the story of Luis, the proprietor of Point LAN House, and Mr. Alvares. Connecting with family members motivated Mr. Alvares to acquire not only computer skills but also more fundamental literacy skills. LAN House owners played a firsthand role in offering informal training to users.

Why is it important to classify LAN Houses as CTCs and a Mundane Technology? LAN Houses have received a lot of bad press in Brazil, which compromised their reputation and potential. These centers were blamed for teenagers staying out late at night and ditching school to play games. LAN Houses were also labeled as "gambling houses" (Angeluci and Galperin 2012).[11] Although these centers could be used in these ways, I have presented the other side of LAN Houses. As a Mundane Technology, they contributed to the well-being of the favela residents, promoted human agency, and alleviated sources of unfreedom. The centers provided a space that helped the residents overcome the difficulties of living in a marginalized and unsafe area. Understanding the potential of LAN Houses and reclassifying them as CTCs could lead to policies that promote their propagation. Consequently, rather than enacting laws that create barriers for CTCs, such as those that forbid their presence near schools (Law #4.782/2006), socio-digital inclusion could become the norm.

11. Gambling houses, illegal in Brazil, are often associated with organized crime.

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# 4

# SOCIAL MEDIA FOR SURVIVAL

> If you spend one day here, in the Telecenter, you will see that all they do is spend time on Face [Facebook] and other social media platforms. To be honest, I don't know how much of this kind of use can be beneficial to them. . . . People perceive the ideal Telecenter user as one that comes here and reads pages and pages on the history of Brazil or something related to school, but this is not the most common user. . . . Maybe learning is happening in a different way nowadays.
> —Vania, Inclusion Agent

The social media landscape in Territory of Good may appear straightforward: people went to CTCs to get on Facebook and YouTube. As described by Vania, people in CTCs mostly used digital technologies for chatting on Facebook, watching videos, listening to music on YouTube, playing Flash-based games, and *gastando*.[1] Vania's concerns were reflected in the conversations I had with managers of the Telecenters. However, I started to see social media use in Territory of Good—which they labeled as merely entertainment and pastime—as Mundane Technologies that afforded local residents opportunities to improve their digital literacy, economic prospects, and interpersonal relationships. In this chapter, I analyze discussions and activities of favela residents in order to demonstrate effective and meaningful ways to use social media that are often misinterpreted—especially by members of upper classes. A social media initiative in favelas should consider that a simple click of a "Like" button can be more significant than researchers might assume.

Thus, while I recognize that favela residents used social media platforms for entertainment, communication, and self-representation purposes, I go

1. *Gastar*, "to spend" or "to waste," is used by teenagers in Brazil to describe the activity of hanging out, chitchatting, making comments, and mocking someone. *Gastando* is the gerund form of the verb *gastar*.

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beyond these purposes to unpack their underlying motivations for engaging with social media. In other words, I analyze how they used their Mundane Technologies—how they appropriated social media—to deal with oppression. They used social media to escape street violence, to combat a culture of silence (P. Freire 2000), in which people are unable to reflect critically on their world and thus become easily dominated, and to pursue their liberations—finding a safe space to hang out, becoming literate, and realizing their own emotions. Social media became another way to survive the favela.

## SOCIAL MEDIA: FACEBOOK AND YOUTUBE

The armed conflict and drug trade have affected the day-to-day activities in Territory of Good. Different areas of the favelas were demarcated by the drug traffickers in informal treaties and agreements, and each attempted to maintain order in its area. The drug traffickers followed a feudal system in which each drug trafficker provided some people with access to goods and services—from cylinders of propane gas and wiretap electricity to protection from outsiders and rival gangs. They provided these resources to gain respect from crucial segments of the local population and create an environment where people felt safe, despite the escalating levels of urban violence. When I was in the favelas in 2013 and 2014, they were in a state of war due to the constant conflict with new drug traffickers who had arrived from Rio de Janeiro. As I described in chapter 1, these drug traffickers were fugitives of the "pacifying" process that was taking place in the Rio favelas.[2]

Favela residents often witnessed territorial shoot-outs between traffickers and confrontations between cartel members and police. Walking around and visiting friends and family in the favelas was dangerous not only because of the shootouts but also because territory boundaries constantly shifted. This fluidity made it difficult for residents to know which drug trafficker their area belonged to and which spaces were safe. Constantly moving invisible walls set by the drug cartels often left families divided and unable to communicate. Carla (forty-one years old), a frequent user of the Telecenter, summed up this problem by talking about how she hadn't seen

2. For more information on the pacification operations in Rio de Janeiro, see Costa Vargas (2013) and Huberman and Nasser (2019).

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her daughter and two-year-old granddaughter in Bairro da Penha in over a month. She said, "I live in Itararé and I don't have enough credits on my cell phone to call her every day . . . and attempting to go up the hill to see her is too risky. I never know when all hell will break loose." Social media in Telecenters helped her stay in touch with them. "[My daughter] goes to the LAN House next to her house and we get on Facebook and chat, exchange the Lord's words; she sends me photos of my granddaughter and we even play games sometimes. . . . It is not the same as us being together, but at least I can rest assured that they are safe." Social media was less about performing identity or making new friends than about reinforcing existing social connections.

Families were not kept apart only by armed conflict; brutal work schedules also required most adults to leave Territory of Good at sunup and return at dark. They constantly negotiated myriad factors, such as safety, financial cost, and access to a device, in order to construct a safe space to communicate with friends and family. Often, as described by Carla, Facebook became the only feasible way for many residents to fulfill their need to spend time with family members. Facebook thus represented more than a meetup space. To many favela residents, Facebook *was* the internet. In other words, Facebook dominated their online experience. Most teenagers and older adults were not aware of non-Facebook services and couldn't tell which online services were outside Facebook's boundaries. For example, instead of already having an email account to create and verify their new Facebook account, they went to Facebook.com and clicked on "Sign Up." From there, they filled out the mandatory fields and clicked on "Next." When they landed on the page requesting their email account, they went on Facebook's Help Page to find suggestions for free email providers so they could register. Consider the response of Diana (eighteen years old) when I asked her to explain why she was creating an email account for her brother Victor (fourteen years old):

> DIANA: It is quite easy to create an account on Face. You put your name and date of birth, and click on Avançar [Next]. Keep clicking on it until you have your account ready. I don't understand all these words and instructions; I keep hitting Avançar, and whenever I see that I should type in my name, I do it.
>
> ME: What about this email account you are creating?

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DIANA: What is an email?

ME: This . . . right here [I pointed to her screen].

DIANA: Ahh . . . I don't know . . . I'm just creating a Face account. . . . This is also part of the process.

Residents like Diana did not know what email was. When I asked, they thought it was just one of the steps of becoming a member of Facebook—they did not know that they were actually creating an email account. The zero-rating schemes that were becoming very popular in Brazil also contributed to the spread of Facebook. Zero-rating (also known as sponsored data) "refers to the practice in which mobile networks offer free data to customers who use specific services (e.g., streaming videos) or smartphone applications (e.g., [Facebook Chat], WhatsApp). Thus, customers who access this zero rated/sponsored content do not pay for the mobile traffic generated by such use" (Omari 2020, 7). On my way to Territory of Good, I walked by several mobile phone stores (telecoms) owned by Claro, TIM, and VIVO. In these stores I saw advertisements that offered customers free mobile data when using Facebook and Facebook Chat. In July 2013, I went inside a Claro store and asked Aloizio, one of the salesmen, about that special promotion. He responded, "It's pretty amazing. You can just add R$5.00 of credit on your prepaid phone and then you can access the new thing for free! Now, anyone from the area [Territory of Good] will be able to access Facebook. . . . The *favelados* will be all online." Similar to Diana, he conflated being on Facebook with being online.

Aloizio was enthusiastic about these promotions because he thought they would finally give people from his community free access to online services that most local residents viewed as vital. As described in chapter 2, most residents of Territory of Good couldn't afford a *xingling* smartphone. Those who owned one usually relied on inferior prepaid plans and kept the minimum amount of credit necessary to keep the cell connection active. Prepaid plans were more flexible than subscription services and came without the financial risk incurred by exceeding the data caps. When using wireless internet, residents with prepaid plans relied on the Wi-Fi networks from the CTCs, but when elsewhere, they benefited from the telecoms' zero-rating promotions. Residents from Territory of Good felt it was extremely important to have free access to Facebook and Facebook Chat, since SMS texting in Brazil was expensive (from R$0.15 to R$0.50 for each

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text). However, the anthropologist Jeffrey Omari (2020, 14) points out, "zero rating has the ability to limit and control the internet access of these same low-income populations. Mobile phone providers, corporate proponents, and many users of the strategy claim that providing free, limited internet access to those who would otherwise be unable to afford it is better than those users having no access at all." Brazilians living in favelas found themselves caught in a trap where they had few affordable options for communication, driving them to free Facebook services, which they conflated with the internet as a whole.

Facebook was also moving forward with its own zero-rating initiative—called Free Basics—in developing countries such as Nigeria, Indonesia, and India, where internet access by marginalized and poor populations was precarious (Lee 2015). Toussaint Nothias (2020, 337) points out that "there is increasing evidence that vulnerable and disadvantaged populations, such as minority groups, refugees, and impoverished communities are prime, albeit largely nonconsenting subjects of digital experiments—be they designed to 'help' or surveil these communities." Because data extraction is central to the digital economy, surveillance is the implicit trade-off of using social media (Zuboff 2019). Despite its initial dismissal of claims of underlying profit motive, "Free Basics was always a way to promote Facebook to first-time internet users, to grow its user base, and to provide a competitive advantage to the corporation in emerging markets" (Nothias 2020). In response, many called Facebook's scheme a voracious form of "digital colonialism" (Kwet 2019).

It is unclear whether Facebook was directly involved in partnership with the Brazilian telecoms back in 2013. However, after Facebook bought WhatsApp in 2014 for US$19 billion, the company partnered with the telecoms to offer a zero-rating plan that allowed subscribers to use WhatsApp for free (Marsden 2015). This market advantage was quite noticeable in Territory of Good. In October 2013, WhatsApp was not popular and local residents had not heard about it, despite its being the most popular app among upper-class people who could afford data plans. One year after its purchase by Facebook, in November 2014, the app was being widely used in Territory of Good because its residents were taking advantage of the zero-rating promotions. As of 2019, WhatsApp had an estimated 120 million active users in Brazil—more than half of the country's population (Nemer 2019).

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Such an advantage helped Facebook quickly overtake Orkut as Brazil's most popular Social Network Site (SNS). This shift was meaningful because Orkut, owned and operated by Google, led the Brazilian market from 2005 to 2012 (Nemer 2013a). During my fieldwork in 2013, only four people from Territory of Good were still using it. Jose (fifteen years old) explained that this transition could also have been a response to wider social trends. He said, "Nowadays you have to have a Face [Facebook] to connect to people on- and offline. No one asks for your phone number anymore; they all want to know if you have a Face."

Although Facebook has been the largest SNS globally since 2008, it was not until 2010 that it started to gain significant numbers of users in countries such as Brazil. Before that point, most Brazilians used Orkut. As the lower classes in Brazil gained more access to basic services and the internet, they wanted to be part of Orkut. Their presence in the SNS was not well received by upper-class first adopters, who created communities on Orkut geared toward making fun of the way poor people used Orkut. In such communities, members mocked the habits of the less affluent and lower educated through bad Portuguese and photos. A few websites, such as PerolasDoOrkut.com.br (Gems of Orkut), were dedicated to finding such gems on the SNS and spreading them with mocking words and out-of-context comments. As a result, lower-class favela residents like Alice (fifteen years old) felt uncomfortable. She reported that she "had to quit Orkut. I did not feel comfortable there. . . . There were several communities mocking poor people from the favelas. When you first look at those photos, they seem funny, but then you realize that you could be on those photos. I left Orkut before they [mocking websites] found my stuff and now I'm just on Face." Facebook became the natural social space for lower-class Brazilians to feel comfortable communicating.

Facebook finally became the most visited Brazilian SNS in 2012 due to the migration of upper-class users (Nemer and Freeman 2015). Upper-class Brazilians were motivated to migrate due to class and race issues similar to those described by boyd (2011) in the United States as "white flight." Brazilians from upper classes labeled the behavior of members of lower classes on Orkut as *Orkutização* (Orkutization). This neologism was used by wealthy users to denounce the "invasion" of an online space by people with "no education" and "no taste" (Cruz 2012). In this way, Orkutization was a symbolic violence used to ridicule, humiliate, insult, and drive away

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low-income users who were beginning to use these previously more exclusive platforms (Spyer 2017). The term was later extended to label online and offline things that became too popular or were accessed by the poor, which upper-class users felt deteriorated their quality (Reis 2014).

People from favelas eventually migrated to Facebook or chose it as their first SNS due to prejudice that associated them with the process of Orkutization. Even on Facebook, the prejudice persisted on posts that talked about the Orkutization of Facebook, as Ricardo (twenty years old) said, "I just read stuff [on open groups]. . . . I don't dare to post anything. They make fun of your looks, your Portuguese, and when you have a question, they will call you *favelado* and tell you to study." As reported by Alice and Ricardo, Orkutization drove the informants to Facebook, which then was still in English, making it even more exclusive to wealthy classes who could afford a better education. The mocking websites also adapted to this change of SNS by changing their names in order to broaden their "hunt for the gems of the poor." For example, PeroloasDoOrkut.com.br changed its name and URL in 2013 to just Perolas.com. Such behavior suggested that the upper classes did not want the "untamed" poor in the same space as them—regardless of what platform they used. They were not interested in understanding the favela residents' background and motivations.

Upper-class online prejudice distanced the already-segregated poor classes from feeling included and accepted in Vitória's society. Leticia (twenty-seven years old) described how these online dynamics affected her offline life. "Everyone at my job get along really well. . . . We play and joke all the time. I also wanted to have that [on Facebook] . . . but some people there live at Praia do Canto and Santa Lucia [rich neighborhoods] and I'm afraid to be judged or even embarrass my friends on their own Face." The accusations of Orkutizing Facebook demonstrated the intersectional reality of favela residents: everyday oppressions they experienced offline seeped into online environments. In Vitória, the social divisions that segregated marginalized neighborhoods also segregated residents on social media. Sociologist Jessé de Souza (2019) points out that the least economically and culturally favored social class commonly faces new social problems not yet mapped. Thus, as I articulate in this chapter, I join Cruz (2012) to claim that the issue of Orkutization is one of these new social problems.

In response to Facebook's caustic online environment, favela residents mostly used the platform for Facebook Chat. They felt safe communicating

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through this tool because they could control their audience. For lower-class people in the favelas, posting content on their Facebook pages (which they often thought of as the internet) was an issue. They did not believe they could produce high-quality content and feared being judged by members of upper classes—they were also afraid of posting information that would upset drug traffickers and opening themselves to eventual retaliations. Rodrigo (twenty-one years old) recoiled at the idea of using Facebook for posting messages, saying, "Are you crazy? Posting on Face? I'm very careful to the things I post. . . . When I have to talk to someone, it goes all on Chat, because I know for sure whom I'm talking to, and if someone spills the beans, I know who the person was. I'm even afraid to talk with people outside on the streets . . . the light poles, walls, cars . . . everything here has ears and you don't want to be heard by the wrong people." His upbringing attuned him to be careful about how information could be encountered online. But even though favela residents were blamed for the Orkutization of Facebook by upper-class Brazilians, they actually had a more aware and conscious engagement on the SNS because they were able to read their reality and engage online in ways that still protected their lives and livelihood.

People in favelas were concerned about their privacy because drug cartels and upper-class members might be able to see and misinterpret their Facebook posts. However, they did not change their privacy settings on Facebook because they felt intimidated by the terms and were scared to mess their settings up. Instead, they used Facebook Chat as a Mundane Technology to shield themselves from the surveillance of cartel members. As anthropologist Juliano Spyer (2017) observes, people in the peripheries live in spaces of dense socialization because they live surrounded by relatives and people they trust; houses are literally built on top of each other in infamous "slabs." While the mere act of living constantly exposed them to surveillance, social media represented a new frontier for talking to confidants in secret. While people often used social media as a way to shorten the distance between them and their friends (Spyer 2017), favela residents used it to avoid undesired exposure while still connecting.

The constant fear of backlash kept residents from regularly posting on Facebook, but they still dared to occasionally post their feelings and opinions. Joana (seventeen years old), who lived right next to Games LAN House, relied on Facebook to "get out of this crazy reality anytime I want. I can cry, scream about my pain because I know that someone will be here,

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online, listening to me. . . . I can for a moment be myself. It is like Face is my best friend." Facebook provided a platform for her to exercise her individuality the way she wanted to do offline. Facebook's affordances allowed favela residents to develop affections for the SNS, which expands on the notion that we only become attracted to technology when it is always on and present (Turkle 2012). In favelas, CTC users were still able to create affection for technology even when they were not on the sites.

Although CTC users were careful and tense when using Facebook, they found watching videos on YouTube relaxing. As I observed, YouTube was the second-most used social media, and its users approached the website with different goals, as mentioned by Bruno (twenty-two years old):

> This is great [showing me a video playing on the screen]! I can come here, watch the History Channel and learn so much. I can't afford cable and even if I could, my wife wouldn't let me change the channel . . . she loves soap operas. So I come here, and it feels like I'm diving in a pool of knowledge. . . . I also like to watch Chaves [or Chavo in Spanish]. You know how I was laughing just a while ago; yeah, it was because of the show. . . . SBT [TV Channel] doesn't broadcast it when I get home from work, so I come here before I go to work to start off the day in a great mood.

Gabriel used YouTube mostly to listen to his favorite genre of music: Brazilian funk. As explained in chapter 1, *funk* originated in the favelas of Rio and became the preferred genre of favelas all over Brazil. Favela artists usually composed the songs, so the lyrics portrayed their way of life, experiences in poverty, and criticism of the government. Funk was a way for the favela people to express their feelings through music, as described by Gabriel: "This is my favorite Funk, listen to it. . . . This MC shows strength and power; he inspired me. You can't hear this anywhere else. . . . They won't play it on the radio because they think it is too dirty." Gabriel thought that the lack of funk on the radio was an elitist gesture, stating, "I guess they think people from here [favelas] are dirty too. That is stupid! They only play some mellow and cheesy funks on the station because they feel like they are more acceptable. . . . They have nothing to do with us. I don't like it." Although funk was being appropriated by the upper class, it was still curtailed because some intellectuals and moralists criticized it. The content of the lyrics was regarded as bad language that incited drug trafficking and promoted violence toward women (Janaína Medeiros 2006).

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However, according to Essinger, the lyrics of funk were misunderstood because the genre was analyzed outside the context of its creation and use: "Funk lyrics are written in general for the favela residents, whom many have low levels of education. Hence funk is heavily marked by the presence of popular local languages and jargons. Hence, we hear a lot of swearing, slangs, simplification and reduction of words and inadequacies of the use of Portuguese, among others" (2005, 21).

Ana (forty-two years old) and her six friends also said YouTube was their favorite social media. Working in the afternoons as cleaning ladies for a shopping plaza outside Itararé, they gathered every morning at Point LAN House. Together, they chitchatted about yesterday's evening soap opera, checked their Facebook accounts, and looked at recipes. But in June 2012, the ladies from Itararé came in for a more important cause: they were trying to raise money to complete construction of their community's public square, called *pracinha*. Tired of waiting on the city government, they went to the LAN House to learn new knitting patterns on YouTube to make baby clothes and dish towels. Ana and her friends sold their crafts every Wednesday morning in a stand at the farmers market. They hoped to use the profits to buy cement and pay salaries for extra people to work in the construction site so they could have part of the *pracinha* ready to inhabit. Initially they saw their struggle as an uphill battle. Ana said, "I understand that the money raised won't be enough, but it will help a little bit and will get people motivated to make a difference in the community." One year later, the city finished and inaugurated the public square and soccer field. The money raised by the ladies helped buy outdoor furniture such as tables and chairs. Excited, Ana said that "now I have two places to hang out, the LAN House in the morning and the public square at night." In this case, Ana and her friends used a safe space, a LAN House, to gather knowledge to gather funding. They didn't sell things online, but the internet was part of this larger repertoire of opportunities. The appropriation of such spaces shows how Mundane Technology is a process in the negotiation of life both online and offline. LAN Houses, as described in chapter 3, were safe spaces in favelas, often used by teenagers for gaming purposes, but Ana and her friends appropriated the CTC to engage in "problem-posing education" (P. Freire 2000). They critically identified a problem from their reality and transformed action so they could create a new situation. Ana and her friends' Mundane Technologies—the appropriations of YouTube and

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LAN House—show us how the oppressed exercised their *conscientização* to expand and transform their reality to a less oppressive one.

## THE LIBERATION OF THE SELFIE

Joana (seventeen years old) approached Facebook Chat as a channel to manifest her feelings. However, she did not express her "self" solely in the form of text. Most informants posted selfies on their Facebook pages through *xingling* smartphones to express their feelings without being too explicit with their opinions. Still, the informants found it difficult to express their true feelings because they were being judged as *favelados* (a term used pejoratively for favela residents) at the same time. They felt oppressed wherever they went. If they hung out in the favelas, they felt drug traffickers watched them. If they traveled outside of the favelas, they felt discriminated against by society and targeted by police, as I describe in chapter 6. They considered Facebook a safer place to express their true feelings, thoughts, and personalities while escaping the drug traffickers' all-seeing eyes. Jefferson (seventeen years old) described the context for his posting of a selfie on Facebook after surviving a harrowing shooting in his neighborhood. "Today I posted a photo of myself expressing my gratitude of being alive. . . . I can't say much more than that because I'll have trouble with people involved in this shooting."

For Jefferson, taking and posting selfies had nothing to do with narcissism or attention seeking. To the contrary, as a resident of a dangerous area run by drug traffickers, Jefferson wanted to escape public attention. His selfie was a strategic way to show his grief about the shooting he witnessed, disappointment about his current living situation, and expectation for a better life. His selfie practice was embedded in a socioculturally dense context and could not be reduced to a simple act of self-promotion—the typical assumed purpose of posting a selfie. Similarly, Fernanda (sixteen years old) one of the few informants with a *xingling*, posted a selfie showing her tears and anger right after the same shoot-out witnessed by Jefferson. Fernanda complained that she did not have the mental capacity to deal with the stress of having her life in daily jeopardy. As we were talking, I noticed a guy in his midtwenties standing just outside Point LAN House. He kept looking at his phone and then at Fernanda, as if he wanted to make sure the person he was looking at on the phone was her. He then caught her

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attention and asked her to step outside. It was a chilling moment, because I knew he wasn't her friend nor a frequent user of the LAN House. I was very scared about the situation, but she seemed fine. When she got back to the LAN House, she was rolling her eyes, saying,

> Did you see that? He wanted to know what my selfie was all about. . . . He asked me if the selfie was related to the *movimento* [drug cartel activity]. I said no; I told him that the photo was about the fight I had with my boyfriend . . . and he believed me. My friends get me, and they know it is about this unbearable armed war. This is how we get to express ourselves here—we say a lot by hiding a bit.

The act of "saying a lot by hiding a bit" through selfies became a Mundane Technology that favela residents use to express their emotions. That is, the process of appropriating selfies to communicate a message with sufficient context removed allowed only those with knowledge of the person to understand the intended meaning. Alice Marwick and danah boyd (2014) label this *social steganography*, in which a person posts content on social media that can be visible to anyone, but its meaningful message is intended for a narrow, desired audience. Rather than restricting access to content, privacy is achieved by limiting access to the content's meaning. This phenomenon, similar to cryptography, is not exclusive to digital technologies. Juliano Spyer (2017, 25) claims that "linguistic anthropology has studied this practice among populations of similar background to the informants and uses the jargon of 'indirection' to refer to it."

Selfies were also a way for favela residents to reflect on themselves. Neuza (twenty-seven years old) came to the Telecenter in Itararé every morning. We developed a friendly relationship and often caught up with each other as we had our first cup of coffee of the day. She often complained about feeling suffocated by her husband because he didn't listen to her complaints or stories. Because Neuza felt that he was forcing her to hide her feelings, she turned to selfies to amplify her emotions. She saw herself as engaged in a process of self-reflection that helped her understand her own feelings. She said she would "upload my photos on Face [Facebook] so I can see my own person. See who I truly am . . . that I'm not just a *favelada*." Posting a "truer" form of herself, she hoped, would lead to rippling effects online. "When I see myself, and hopefully the others will do the same, I reflect on my image. If I'm feeling sad or angry, I take a picture and post it on my Face to see if it reflects on my soul. I don't think I'm going crazy or anything. I just want to have the conscious of my true self in this crazy world [favela]."

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Neuza was not concerned about others' opinions of her, though she hoped that others would do the same to reflect positively on her. She did not endeavor to (re)construct her self-esteem or optimize self-presentation to seek compliments. She used selfies to express her emotions, enhance private self-awareness (Cooper and Sportolari 1997), and maintain her "true self" in the "crazy world" where she was suffering. Neuza's selfie practice was self-oriented, with a focus on self-reflection and self-improvement. Leo (thirteen years old), a frequent user of Games LAN House, usually used his selfies for more informational purposes: to let his mom know where he was and to signal that he was safe. "My mom works the entire day and I have nothing to do after school. . . . I love playing soccer on the streets, but it is dangerous due to the [drug] street managers wanting new people in their team. I always post photos of myself to show my mom where I am and that I'm OK. . . . She always checks her Face [Facebook] at work during her breaks. . . . There's a computer there they can use." Felipe (sixteen years old) used selfies similarly, to communicate with family. Being on the streets without adult supervision was dangerous because the drug traffickers were always looking for new recruits to expand their cartel. Using selfies became a fast and efficient way to communicate with his mother and provide her with visual evidence that he was safe.

## BREAKING THE CULTURE OF SILENCE THROUGH SELFIES

CTCs were safe, trusted, and friendly places where favela residents felt it was easier to disclose their true feelings and deepest thoughts—which made them perfect spaces for taking and uploading selfies. Although free Wi-Fi was available in the Telecenters, users did not upload their selfies directly from their *xinglings* because most of them were generally unaware of how to use the open Wi-Fi network. They usually first transferred their selfies to desktop computers in the CTCs using a USB cable, then uploaded the photos to Facebook. However, the CTCs were more than just physical places to upload selfies. In CTCs, participants felt more relaxed, comfortable, and happier, as Mariana (sixteen years old) explained.

> I come here to hang out with my friends, not just to use the computers. . . . I go to the bathroom and take photos with my friends. . . . I don't have a large mirror like that one [in the bathroom] at home, so here I can fit everyone in one photo. . . . I love the Telecenter; here I feel safe and, in these photos [selfies],

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> I can show my happy side, my real self . . . because in the dangerous streets, unfortunately, I'm always showing my worried and anxious side.

For Mariana and her friends, taking selfies in the CTCs enabled them to show a happy side of their unhappy times. Hanging out and taking photos with friends in a safe (and nicer) place comforted and encouraged them, making them stronger and braver to face what they described as unhappy and unsatisfactory times. These users understood selfies as a way to use social media to project a better, curated image of themselves. They used selfies to escape from the powerful drug traffickers' control of their everyday lives, to implicitly express their objections to inequity and violence, to enhance their reflections of their true selves, and to gain self-comfort and self-encouragement.

The residents of Territory of Good also shared specific selfies to create new representations of their communities. In fact, they worked hard to create these new offline representations, as with Ana and her contribution to the public square. Their goal was to deliver a more humanizing and positive account of themselves that could reverse unjust media stereotypes. The Brazilian media was known for its stigmatizing coverages of the favela. Its accounts and news stories of violence, the drug trade, and criminality in and around favelas have long dominated the front pages of Brazilian newspapers. The systematic association between poverty and violent criminality made the favela a synonym for an outlaw territory where armed conflicts made life a constant struggle. Favelas received little coverage of matters unrelated to drug trafficking and crime. The residents' culture, sports, economics, and daily difficulties were rarely reported in newspapers and magazines, especially when compared with the immense number of reports and notes on police operations, shootings, invasions, and executions (Valladares 2019). Bia (twenty-seven years old), for example, was eager to change the public perception of her community.

> You turn on TV Gazeta [local TV channel] and they only show the trash spread on the streets, houses falling apart, and gang members. What about us? What about the hard-working people that live here? Our *pracinha* [public square] is really nice; there's always fun stuff happening there. We are also very proud of our farmers market. . . . People come from rich neighborhoods to buy fresh and organic food here, but you don't see that on the media.

To share more about the hard-working people in her neighborhood, Bia posted selfies of herself during events that took place at Territory of Good,

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such as the weekly farmers market. Bia's selfies were a Mundane Technology she used to deconstruct past derogatory images of her favela. She tried to reverse the usual description of the favela as a "maximum zone of poverty and inequality" (Valladares 2019). Even though she was living in a zone of oppression, she still wanted to show her reality according to her own account.

Illiteracy was another serious issue in favelas. The illiteracy rate among people over age fifteen who lived in favelas was 8 percent—double the rate in regular urban areas outside favelas (IBGE 2013). However, lack of reading skills did not stop them from coming to Telecenters and LAN Houses. Roberto (sixty-three years old) was a frequent user of the Gueto LAN House and knew his way around the online world. He came to the CTC to play Flash-based games and *gastar* on Facebook. On Facebook, he mainly used photos, especially selfies, to communicate with his friends. For him, taking selfies was a tactic to overcome his illiteracy and communication barriers. With selfies, Roberto did not need to rely on text-based computer-mediated communication, which requires sufficient reading and writing skills. This low barrier to entry enhanced his capabilities to socialize. As he put it, "I can't talk to people using the keyboard, so I upload my photos. . . . I say hi, good afternoon, goodbye . . . all on my photos. I wish I could read and write, but I guess I'm too old for that."

Illiterate favela residents, like other favela residents, used selfies (rather than text messages and emails) to communicate with their families. For some, learning to take and post selfies was a process in which they could improve their literacy through socialization. This was evident in the experience of Alice (fifteen years old), who shared a *xingling* with her older sister Mariana. They learned most of the device's functionality from the Telecenter staff and with their friends' help. Although Alice was enrolled in seventh grade in a public school in Itararé, she was considered illiterate, since her reading and writing abilities were far below her age level. I asked Alice how she was able to get passing marks in her exams to move to the next grade, and she said that her "teacher takes me and a couple of other students to another classroom and we just do what he tells us to do." This is another example of why Freire was critical of the transactional nature of banking education. Instead of telling students what to do or "depositing" knowledge into the students' heads, teachers must be theoretically grounded and use methods that awaken awareness, creativity, and interest in their students. Alice told me several times that she hated school and couldn't stand how her

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teacher made class "so very boring." Nevertheless, teachers are also victims of banking education because they are not equipped with proper pedagogical training and materials. According to Freire, teachers should be trained through debates between teachers and students in order to understand students' knowledge. But the heads of the Brazilian teachers that frustrated Alice were also populated with class plans and materials that came from the government. Such banking education doesn't work because, according to Freire, literacy cannot be achieved from top to bottom, or from outside to inside. Literacy can be achieved by the illiterate ones themselves working from inside to outside, with guidance from their sensitive educators.

Alice had a written sheet that listed Facebook's URL and her log-in information, and she usually relied on her friends and Vania, the Inclusion Agent, to help her use the social network site. When she first came to the Telecenter in April 2013, Alice did not understand the words on the sheet. She logged in to the SNS by typing the corresponding letter from her cheat sheet on the keyboard. She was unable to read anything on her screen or chat with others, but she managed to "Like" and share her photos, say hi (*oi*), and laugh by typing "kkkkkkkk." She was mostly interested in knowing what others commented on her photos.

> I'm terrified of my school. . . . I feel dumb there and no one is willing to help me. . . . I come to the Telecenter to hang out with my friends here. This is a meeting place, but more importantly I can hang out with other friends who are working, at school or in LAN Houses and Telecenters. . . . We can all talk on Face [Facebook]. . . . They can see my photos and see what I'm doing, what I'm dressing. . . . If I don't come to the Telecenter I can't get on Face and I feel lost later at the *pracinha* [public square]. I need to understand what people are talking about so when it's 6 p.m. and we go to the *pracinha*, I'm already aware of what is going on.

The banking education that Alice experienced imposed on her what Freire calls the "culture of silence," which domesticates students to become voiceless and conform to oppression. However, by the end of my fieldwork in 2013, Alice was able to understand some comments on her selfies such as *linda* (beautiful), *gata* (hot), and *feia* (ugly), edit her selfies, have longer conversations on Facebook Chat, and *gastando* with her friends on Facebook. Through her Mundane Technology—her use of Facebook to *see and be seen*—Alice broke the culture of silence by consciously engaging with her

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limitations in order to become voiceful. This is what Freire calls "the process of becoming": when a person understands their limitation but continues to engage with their reality in order to consciously become fully human.

Teenagers like Alice usually started selfie-driven conversations on Facebook because they could not always be physically together. When later they would meet in offline places such as the *pracinha*, they would continue their conversations. Originally, Alice was motivated to share her selfies on Facebook, read comments, and write feedback so she would not be left out of her circle of friends and offline conversations. For her, selfies were a way to be included in social circles and stay engaged in offline communities. Alice described her motivation as wanting "to be famous in the community. . . . I need to know how to use Face, take good photos and one day, thank God, I'll learn how to do cool videos. . . . I know people from the drug cartel, from church, from school. I want to be a *famosinha* [famous teenager] so I can talk to cute boys and people will 'like' my photos, call me pretty and make me feel important."

Some scholars (e.g., Barakat 2014; McKay 2014) claim that selfies are perceived as a shallow way for teenagers and celebrities to show narcissism, cultivate fashion, seek attention, and self-promote. However, the ways that selfies were appropriated in the Territory of Good do not support these assertions. Researchers have established that teens use social media in ways that defy popular stereotypes of superficiality (boyd 2014), and I found similar complexities among youth in Territory of Good. As a younger generation lacking education, public security, and access to digital technologies, their learning how to take and post selfies on Facebook had deeper sociocultural meanings. In the process, they remind us that practices of understanding, interpreting, and experiencing selfies are embedded in dense sociocultural contexts. Favela selfie users were under constant surveillance by drug traffickers, and this extraordinarily complicated and stressful situation greatly influenced these residents' freedom and life experiences offline and online. Their lives were full of violence, poverty, danger, disappointment, uncertainty, and insecurity, but they still did not lose their hope for a better life and their expectations to know the world.

Selfies helped adults and teenagers deemed functionally illiterate by society know more about the world, stay in the social loop, and improve their literacy. In these ways, they gained confidence, knowledge, hope, and enthusiasm in an environment of severely constrained possibilities. Their

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appropriation of the selfie became their own Mundane Technology, as they exercised their agency and consciousness to use technologies to mobilize themselves toward their goals by safely sending hidden messages to bypass members of the drug cartel. For them, selfies were far more than an instrumental artifact of communication and self-representation. Their choices and decisions were guided by their reflections on what was important to them in their marginalized living situation and how digital technologies could help them find some liberation. By amplifying their voices, even in the midst of their oppression, they could break the culture of silence imposed by Brazilian society.

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5

# PROUD *FAVELADAS*

## *Resisting Gendered Oppression in Territory of Good*

I had a 10:00 a.m. meeting with Jessica (twenty-one years old) at the Telecenter in Itararé. As I was preparing to leave my house, rain started to pour down. I had to rush, because the walk to Territory of Good was going to take longer and be more difficult. Vitória is an island, so many streets get completely flooded with any heavy rain. The city's draining system is so inefficient that it barely manages to keep the main avenues drivable. When heavy rain comes down during a high tide, it is even harder for the city to flush water into the ocean. The heavy rain and floods, like every negative event, affect the favelas more dramatically than more affluent areas. The lack of proper pavement and collection of trash means the few storm drains are immediately clogged, quickly making the Territory of Good streets unwalkable. As I ventured through the streets of Itararé with water past my shins, I watched waterfalls form and propel bags of trash and roof tiles through the narrow alleys of the hillsides of Territory of Good.

I was worried about Jessica, but since I was already late, I went straight inside the Telecenter hoping to find her there. Jessica showed up five minutes after me. To my surprise, she was not as wet as somebody who wasn't carrying an umbrella would be. She said, "The rain got worse when I was already down the hill and close to here. . . . A guy offered to share his umbrella with me." Getting more upset, she continued, "Can you believe that after we got here he grabbed my waist and asked for my number? Imbecile!" I said that I was sorry and asked if she needed anything or wanted to reschedule our meeting. Jessica said no but asked to use the computer I was on to contact her friend to tell her boss that she would be late for work. I asked her if she wanted me to leave and come back after she was done, she said no, because "I want you to see what it takes to be a woman from the favelas on Facebook." As soon as she logged in, I immediately understood what Jessica was talking about; she had thirty-eight friend requests and forty-two chat notifications flashing before her eyes. "See this?" she asked,

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pointing to the notifications. "It's not just visually annoying, but these guys here . . . I don't know them. They do exactly what the umbrella guy did to me. . . . What sucks is that I have to go through their faces on the chat list because I need to find the chat with my friend. . . . Welcome to my world." She sighed deeply, clearly tired of explaining the oppression familiar to women in favelas in both offline and online realms.

To understand the world of women—especially Black women—means understanding how social, racial, and patriarchal oppressions work into every aspect of their lives. Jessica's experiences demonstrate how gender inequality permeates social relations in Brazil. Her experiences also show how racism, sexism, and classism interact to accentuate, neutralize, or reduce the effect of one category on another (Odara and Bueno 2017). According to the sociologist Luiza Bairros, racism and sexism have influenced the relationships that determined the Brazilian society from its founding moment. C. S. Oliveira and Ruas (2018) describe racism as being "in the DNA of our society." The "2015 Map of Violence" (Waiselfisz 2015) reports that in 2013, 4,762 women were murdered, and 67 percent more Black women were murdered than White women, placing Brazil in fifth place in female homicides worldwide. The homicide rate among White women fell from 3.6 per 100,000 in 2003 to 3.2 in 2013, a reduction of 12 percent. However, during this same time period, among Black women there was an increase from 4.5 to 5.4 deaths per 100,000, an increase of around 20 percent. Even though these numbers seem high, the reality is likely higher because gendered violence often goes unreported in favelas. In particular, women suffer domestic violence in silence (Bandeira 2017). According to Bandeira, there are no official data on the number of violent cases in favelas or on how they unfold. However, rates of physical and sexual violence are higher in Vitória among women with lower education and income—demographics characteristic of women from favelas (Leite et al. 2017).

Women from Territory of Good like Jessica face oppression in both physical and virtual worlds. In this chapter, I will explain how oppression materializes in CTCs and on Facebook through general harassment and sexual harassment. *General harassment* refers to the hostile or unwelcome behavior that causes a target discomfort or distress (Einarsen 2000). *Sexual harassment* involves targeting someone on the basis of their sex or gender identity. It includes sexist comments, unwanted romantic advances, rape threats, and sexualized "jokes" (Fox and Tang 2017). When analyzing sexualized forms

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of harassment, I take an intersectional approach in order to show how class, race, and gender made women targets for continued oppression.

I also describe how women appropriated Mundane Technologies as coping mechanisms to respond to the oppression suffered in online (e.g., Facebook) and offline (e.g., the workplace, the CTCs) environments. While women still had to face the consequences of patriarchy and social and race discriminations, their Mundane Technologies enabled them to create knowledge and resilience through invention and reinvention. As Paulo Freire suggests, they restlessly and hopefully questioned "the world, with the world, and with each other" (2000, 72). However, in the spirit of reinventing Freire, this chapter draws as much from feminist critiques of him as from Freire himself. Freire was criticized by feminists for initially using chauvinist language in discussing oppression and denouncing oppressive structures in *Pedagogy of the Oppressed*. He accepted the criticism and addressed sexist language in his later writing. Thus, in the next section, before getting to the stories of the women from Territory of Good, I bolster my analysis with criticisms Freire received from North American feminists and argue that an adjusted message from *Pedagogy of the Oppressed* can denounce patriarchal oppression.

## PAULO FREIRE, *PEDAGOGY OF THE OPPRESSED*, AND FEMINIST CRITICISM

When *Pedagogy of the Oppressed* was translated into English at the end of 1970, Paulo Freire was rightfully criticized by North American feminists for discussing oppression and denouncing oppressive structures while using sexist language. He used "men" and "man" throughout the book in place of "women and men" or "humankind" (Roberts 2016). Feminists wrote several letters to him expressing their concern about different sections from the book: "In this fashion, as their consciousness of the situation grows in acuity, men 'appropriate' that situation to themselves as a historical reality that is thereby subject to transformation by them [masc.]" (P. Freire 2014b, 82). Freire was also criticized for little dialogue with the feminist movement (M. A. Silva 2010), absence of female protagonists, and no mention of male domination (hooks 1994; Weiler 1991). Well-justified concerns revealed latent gendered oppression in the very midst of his writing.

Freire struggled with the concerns of feminists before changing his position. He confessed that right after receiving the first letters from the

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North American feminists, he defensively justified himself by saying, "When I talk about men, women are also included." Gradually, he began to see the "ideological lie" of his justification (Andreola 2016). He took the concerns of feminist scholars seriously and "wrote to all of them, one by one, acknowledging their letters and thanking them for the excellent help they had given [him]" (P. Freire 2014b, 83). In particular, in *Feminist Theory: From Margin to Center*, bell hooks writes that when she confronted Paulo Freire about the sexist language in his book, he agreed with her. He "supported wholeheartedly this criticism of his work" (1984, 42) and urged hooks to share her criticism with her readers. In his subsequent publications, Freire shows that he changed his theorizing and writing to overcome sexist language. He credits his shift in thinking to the feminists who wrote to him, as he mentioned to Donaldo Macedo in an interview. "It is with great satisfaction that I admit that my engagement with feminist movements has enabled me to take a more refined focus on gender issues" (P. Freire 2015, 260). According to Balduino Andreola in "Paulo Freire and Woman Condition" (2016), when Freire wrote *Pedagogy of the Oppressed*, he was more influenced by class-based Marxist analysis. Accordingly, when he wrote about "transformation," he took for granted that "liberation should take place for men and women not just for men or for women or for Black and other ethnicities" (P. Freire 2015, 262).

In the interview with Donaldo Macedo, Macedo asked Freire to comment on why he had universalized oppression without accounting for the multiplicity of individuals' oppressive experiences characterized by race, gender, ethnicity, and religion. Freire responded by saying that "without avoiding the issue of gender, I must say that the readers have some responsibility for placing my work within this historical and cultural context." Making an argument for historical specificity, he continued, "the person reading *Pedagogy of the Oppressed* as if it had been written yesterday somehow dismisses the historicity of the book. What I find absurd is to read a book like *Pedagogy of the Oppressed* and criticize it because the author did not deal with all the themes of potential oppression in an equal way. I believe that what a person needs to do is to appreciate the contribution of the work inserted in its historical context" (P. Freire, 2015, 262–263).

I agree that although *Pedagogy of the Oppressed* was justifiably criticized by North American feminists, such critiques don't negate the value of Freire's book. bell hooks similarly claims that "the sexist language in these translated

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texts does not prevent feminist activists from identifying with or learning from the message content" (1984, 42). Putting this idea into action, feminist groups in Brazil and Switzerland were inspired by Freire, despite the sexist language (R. de Oliveira and Harper 1985). Paulo Freire admitted that during his formative years, he could not escape from the powers of a highly sexist culture in Brazil. In fact, since the publication of *Pedagogy of the Oppressed*, he has tried to remove the sexist language that was degrading to women's liberation journey (P. Freire 2015). I prefer to regard Freire's journey toward understanding feminism as his own *critical conscientização*, a process that allowed him to grapple with social and political contradictions and through which he achieved an in-depth understanding of the world. In turn, it is important to remember that Freire wanted us to re-create and reinvent his ideas in an attempt to "conscientize" oppressions that he wasn't able to address in his lifetime. Thus, reinterpreting *Pedagogy of the Oppressed* in *Technology of the Oppressed* is my way of fashioning more inclusive language about matters of technology, gender, and race alongside the class-based critiques that were Freire's initial concern.

## CTCs AS SPACES OF GENDER OPPRESSION

The physical and social infrastructures of the CTCs influenced which favela residents accessed them and how. In one of my visits to the Telecenter in São Benedito, I noticed that Mariana (sixteen years old) looked very bored and wasn't really playing at the computer. I asked why she looked bored, and she answered that she wanted to play new games, "like in a real video game console." I asked why she didn't go to a LAN House; I thought she would reply that she didn't have the money, but she told me something unexpected: "Here, we know that LAN Houses are for boys and Telecenters are for girls." Her response showed that technology can be framed by institutions (Wajcman 2006) and that such framing can be heavily gendered (Kleine 2011). To explore how LAN Houses and Telecenters became gendered, this section analyzes how space in favelas was socially constructed and negotiated, defined by explicit and implicit physical and social boundaries. As I described in chapter 3, appropriations of CTCs were one of the favela residents' Mundane Technologies; as I discussed in chapter 1, Mundane Technologies are the processes of the oppressed appropriating everyday technologies—technological spaces such as CTCs—to alleviate oppression

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in their everyday lives. This chapter focuses on the gendered oppression articulated by Mariana.

The more masculine LAN Houses in the favelas were where residents played games on computers or consoles. No informants had a video game console at home, so they went to the LAN Houses to play their favorite games: *FIFA*, *Counter-Strike*, and *Call of Duty*. The ambience at some LAN Houses was dark, and walls were decorated with posters of a half-nude Lara Croft and war scenes from *Call of Duty*. Boys cursed at each other and shouted constantly, creating a raucous atmosphere: the action in the games was reflected in the physical world. In one of my visits to Games LAN House, one boy punched his friend because he did not cover him in the battlefield of *Call of Duty*, which led to his character's death. Another teenager slammed the PlayStation 1 because he disagreed with a referee's call in *FIFA*. The language used in the boys' conversations was also very bold; they constantly used sexist and homophobic terms like *pussy* and *fag* to describe someone's inability to play well. Such trash talking is a common part of competitive gaming, in which a player insults other players to influence their play. It ranges from playful teasing to malicious offenses intended to harm or distress other players (Conmy et al. 2013). The way that the boys engaged in trash talking in LAN Houses can be considered a form of harassment situated around the target's perceptions rather than the harasser's intentions. Fox and Tang write, "The source may not intend for their actions to cause distress or they may see the behavior as good-natured fun rather than hostile aggression" (2017, 1292). Gabriel (seventeen years old) drew a parallel between rough video game play and roughness in sports, telling me, "I don't see a problem; this is how we play . . . in here or in the soccer field." The ambiguity between playful joking and more harmful jibes allowed harassment to persist under the guise of being ways boys naturally express themselves.

Although the boys did not seem to have a problem with such behavior, an atmosphere of hegemonic masculinity presented a barrier to favela women. Fatima (forty-nine years old) told me that she came to the Gueto LAN House early in the morning because "I don't want to see these little delinquents. They scream and shout bad words all the time. . . . They need to understand that they don't own the place and might make other people uncomfortable. I'm a grown woman and they know they can't mess with me, but my daughter is not allowed to come to the LAN Houses. I don't

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want her to be around boys, especially those that behave so badly." The presence of teenage girls in LAN Houses was not encouraged by other parents, either. Alice (fifteen years old) said that "my dad doesn't want me to talk to boys because he doesn't want me to end up with a belly [pregnant]." Nor did the teenage boys appreciate the presence of young women. Beto (fourteen years old), expressing a common gendered perspective, didn't see action games as even playable by young women. "Video games are not for girls; they don't know how to play it. Can you imagine a girl playing CS [*Counter-Strike*]? They can barely kill a fly; imagine having the guts to shoot at someone in the game. They should play with their dolls or polish each other's nails."

These dominant patriarchal ideologies made LAN Houses uncomfortable for women to frequent. In her essay "Women in Everyday Spaces," Gillian Rose (1999) situates time and geography as drivers of the invisibility of White male heterosexual privilege. As she proclaims, "Many feminists have looked at women's unease in and fear of public spaces, and many argue that women's sense of security in public spaces is profoundly shaped by our inability to secure an undisputed right to occupy that space" (363). June Jordan explains the lack of security in public spaces as

> a universal experience for women, which is that physical mobility is circumscribed by our gender and the enemies of our gender. This is one of the ways they seek to make us know their hatred and respect it. This holds throughout the world for women and literally we are not to move about in the world freely. If we do then we have to understand that we may have to pay for it with our bodies. That is the threat. They don't ask you what you are doing in the street, they rape you and mutilate you bodily to let you remember your place. You have no rightful place in public. (Quoted in Rose 1999, 363)

Stances like Alice's and Beto's help us understand why video games, especially noncasual ones like shooting and role-playing, remained a stereotypical male activity in Brazil (Shen et al. 2016). The perception that video games are for men was often thought to be true due to women's underperformance. However, in the case of the LAN Houses, women were less experienced with noncasual games simply because they did not feel welcome in gaming centers. I observed that favela women's underperformance in games was linked to their lack of opportunity, which was rooted in their lack of access to LAN Houses. This aligns with T. L. Taylor's claim in *Raising the Stakes* that women's marginalized status is not a result of

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skills or commitment; instead, it persists due to "an imagined difference between men and women . . . [which] remains a persistent myth" (2012, 119). Accordingly, the atmosphere in the LAN Houses broadly reflected the sexism of Brazilian society. Rangel (2013) claims that women in Brazil were already accustomed to being seen as sex objects and housewives. She argues that the "mission" given to girls over the decades was to get married, raise children, and satisfy the sexual desires of their partners—all without losing the composure of a good "family" girl. Hence, girls inside the LAN Houses would have challenged the social constraints and gone beyond their societally prescribed "mission."

Although the teenage girls obeyed gendered norms, they did not always agree with them. Larissa (seventeen years old) protested, saying, "My mom said that she doesn't have money for me to go to the LAN House. . . . I think she does, but she just doesn't want me around games. She thinks games are violent and evil. . . . They are not for girls. I'd like to try them once. I love soccer and I can't wait for the World Cup, but I can't play it on the field or *FIFA* at the LAN House [because boys did not allow her]." While she didn't agree with being restricted from the CTC, she also couldn't think of a plausible way to change the sexist dynamic. "I don't think it's fair. I wish Marta[1] would come here and teach them a lesson!" Girls in the favelas faced the social pressure to stay away from LAN Houses; however, they maintained an interest in playing video games. Amanda (eighteen years old) told me, "Yeah, the games are violent, but even the guys will say that, that is the main reason why they like such games, but I don't have a problem with it. It is all for fun, you know?" With a laugh, she said, "I'd love to play games, but the boys seem to have a problem with girls playing with them. . . . Maybe they don't want to lose to us [girls]."

Just like Amanda, most teenage girls in Territory of Good I interacted with were interested in playing video games. However, they were discouraged due to the LAN Houses' ambiance and social norms imposed by their parents and boys in the centers. Thais (seventeen years old) saw LAN Houses as shady, noisy places. "I don't feel like going to Gueto [LAN House]. It is dark; the boys are pushing each other . . . screaming . . . I don't know. . . . I don't get a good vibe from that place. That is why I prefer the Casa Brasil

1. Marta Vieira da Silva is a Brazilian professional soccer player and a six-time FIFA World Player of the Year.

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[Telecenter in Itararé]." Telecenters did not provide the same gaming experience as LAN Houses. As discussed earlier, their computers ran the Ubuntu operating system, meaning users could not install their favorite games. This limitation affected girls the most: they were not "allowed" in LAN Houses, yet they could not play games like *FIFA* and *Counter-Strike* in Telecenters since their computers ran Linux. As a result, as Amanda described, "My gaming experiences revolve around whatever I can find on Facebook, like *Candy Crush*." Technological constraints and unwelcoming spaces narrowed their gaming to web-based and Facebook games. In Territory of Good, the choices of teenage girls did not reflect their game preferences. Instead, gendered differences were the natural result of the limitations and social constraints that girls faced—the combined result of their lived experiences.

## TELECENTERS AS SAFE BUT LIMITED SPACES FOR WOMEN

Telecenters had a completely different ambiance than LAN Houses. The lights were bright and the Inclusion Agents tried to keep conversations at a low tone. Their walls were decorated with workshop announcements, job openings, beautiful landscapes, and motivational messages. The arrangement of the rooms followed standard rules and was checked every week by the CDI managers. One manager described the arrangement of Telecenters as more inclusive, saying, "We want the Telecenters to look like a welcoming place to everyone. We want these centers to serve, men, women, the elderly, and people with disability. . . . Telecenters are about digital and social inclusion; thus we can't benefit a group of people over another. This is for the entire community." In both Telecenters, I observed more women than men, which mirrored statistics collected in the centers' database. According to the manager, the Telecenters in Territory of Good had a women-to-men ratio of 3:2.

The women felt welcomed and comfortable in Telecenters, not only because of the ambiance but also because the social interactions were more friendly. Carla (forty-one years old) reflected on this by saying,

> I don't like LAN Houses because it [the atmosphere] is too heavy for me, you know . . . it is just not for me. I only go there if I have to get online on the weekends. I don't think they are bad, but they are just not for me. Here in the Telecenter [Itararé] I can make new friends, like Zilda the cleaning lady. Now

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> we go to church together. I feel free; I can talk to people, ask for help to the Inclusion Agent; she is so friendly and welcoming. Sometimes I just want to come to see her.

Inclusion Agents offered Telecenter users help, from finding websites to editing photos. Their openness and willingness to help was especially appreciated by women. Vanessa (twenty-eight years old) described her relationships with Inclusion Agents as lacking the sexist overtones that marked her everyday life.

> Here in the favelas, it is hard to be a woman. We have men constantly coming on to us; it bothers me. Sometimes, when you ask for help to a guy, like carrying something for us or even when we buy something at a store, they always expect something in exchange . . . and this "something" is like a kiss or . . . I don't even want to think about it. I just know that it isn't respectful. But with him [Patrick, Inclusion Agent from São Benedito] it is completely different. He helps us with his heart . . . no second intentions. I can ask for all the help I need, and he will do it with an open heart. I want my son to be just like him.

Vanessa saw that Telecenters countered the sexist culture in Brazil, where women from favelas were constantly being preyed on.

Patrick did not have issues helping men or women. However, Vania, the Inclusion Agent in Itararé, had issues with men. She said,

> They feel ashamed to ask me a question . . . not male kids, but teenagers and adults. They don't want to show to a woman that they don't know how to do something. It would be like a defeat to them. Favelas have a very macho society. . . . I think the entire country is like that, but here it seems worse. The Inclusion Agents are trained to deal with people's differences, such as age and gender. When I see that someone is stuck, trying to do something on the computer, I always ask them if they need help, but the men will instantly say, "No, I'm just thinking about something else," but when I turn around, I can see them asking for help to a friend next to them.

My observations supported Vania's testimonial. In fact, I was approached by male users who needed help with the computer and didn't want to ask Vania. I helped users to gain their trust and give back, but when I noticed that Vania was available for consultation and a male user asked me for help, I asked, "Why don't you ask her?" Some users mumbled and gave up on the idea of asking me for help. Others, like Olavo (twenty-one years old), replied that they did not feel comfortable because "you know . . . well . . . I don't know . . . I just don't feel it, you know. . . . It is hard to explain. I'm

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already twenty-one years old; I'm an adult and I can't depend on women; I'm already the provider at my home." For Olavo, asking for help meant showing weakness. His attitude reflected the stereotypical hostile sexism present in Brazil's society, which stems from a desire for a male-dominated society where men are providers. Men dominated women and resented women who tried to gain relative power (Christopher and Mull 2006).

In the Telecenters, I did not observe anyone having sexual harassment problems, and women also didn't feel intimidated by the presence of men. The CTCs' ambiance was more harmonic and inclusive than the LAN Houses', which was not a coincidence since the CDI managers worked with the Inclusion Agents to foster such an atmosphere. Women used Telecenters mainly for social networking, but they also used the centers to find services to improve their daily lives. They frequently visited food websites, and 60 percent of women informants mentioned that they printed or copied online recipes. Natalia (fifteen years old) browsed recipe websites to cook for her sister and father, since her mom had to work all day as a housekeeper. She described her role as domestic support, since she would "cook for my little sister and dad; he works around here and comes home for lunch. He is very demanding and always wants me to cook better. . . . I'm not a chef; I've told him that, but he doesn't listen. Ever since I started getting new recipes here, I've been able to be more creative and get his compliments; I can feel that the vibe in my house is much better."

Women were usually the majority in the workshops run by Inclusion Agents; they represented around 70 percent of the users in the room. In focus groups, I asked women why they went to the workshops. They responded that they wanted to gain new skills to improve their homes, as mentioned by Carla (forty-one years old). "I don't have money to buy gifts for my kids, so I always come to the workshops to learn how to build new things. One day we built a checkers board and collected bottle caps to use them as the pieces. The other day we researched e-waste and we built little robots out of computer boards. I bring these toys to home for my kids and they love it." In this way, women appropriated Telecenters as a Mundane Technology to alleviate sources of oppression such as the social constraints found in LAN Houses and the persistent sexism of Brazilian society. Through Telecenters, women like Carla and Natalia also found ways to improve domestic life. However, such liberation in the Telecenters was limited and came within the given mission imposed on women of favela communities.

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Left to their own devices, White heterosexual men possessed a freedom to roam, constructing spaces as made by and for them (Nemer and Gray 2019). Therefore, they socially coded LAN Houses in the favelas as male and Telecenters as female. Patricia Hill Collins confirms that, in the naturalization process forming gendered hierarchies, "the differential treatment of girls and boys regarding economic autonomy and free-access to public space parallel practices such as the sextyping of occupations in the paid labor market and male domination in government, professional sports, the streets, and other public spaces" (1998, 66). Feminist geographers have long been attuned to how public and private spaces impose certain roles and oppress women and their bodies. As a result, when staking claims to space to resist heterosexual masculine domination, marginalized groups are driven to transgress the boundaries prepared for and maintained by men. But as they attempt to co-construct these spaces, women are often seen as interlopers, making radical transformation difficult.

To make sense of the interplay between gender and race, we must understand why these spaces sustain gendered *and* racialized hierarchies. Invoking Nirmal Puwar's (2004) concept of "space invaders," space and bodies are interconnected. Women of color are framed as negative and deviant when they are occupying spaces constructed by and for men. In this way, space constructs an environment where particular bodies are linked to specific areas. Within these gendered spheres of private and public spaces, women and men again assume distinctive roles, and women are expected to remain in their home "place" (Collins 1998, 67). As seen in the male interviewees who refused to ask a woman Inclusion Agent for assistance, the transgression of these constructed barriers induced anxiety in men, who unconsciously want to control women's bodies and actions. Puwar provokes the reader to challenge the notion of the "naturalized body" (i.e., White, masculine, and heterosexual) and critically evaluate why other types of bodies are seen as "out of place" in privileged spaces. These highly visible "space invaders" are often sought out and highlighted as representative of difference. The coding of bodies as deviant occurs in spaces occupied and dominated by privileged bodies of men. When these spaces and places are occupied by marginalized bodies, then the "bodies out of place" become those who are more marginalized, existing at the intersection of barriers based on access, gender, and digital technologies (Nemer and Gray 2019).

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By applying a spatial lens, I am concerned with how technology, as it is socially and culturally shaped through CTCs, influences and reproduces patterns of traditional gender roles. The CTCs help us unpack the myth that merely increasing women's access to technology will automatically improve their social conditions (Rosser 2005; Wajcman 2006). For many cyber and digital feminists, technology embodies the domination and exploitation of women (Rosser 2005; Wajcman 2006). Black cyberfeminists argue against constructing women as mere victims of patriarchal technology and instead focus on how women utilize and employ technologies (Gray 2015). While the centers in favelas provided women spaces to explore their gendered realities, they did not help them with larger problems such as sexism, sexual harassment, and women's rights. Rather, the liberatory potential of these spaces was in providing women with structural platforms to explore technology based on their needs—oftentimes, such needs were related to the accomplishment their given mission.

## DIGITAL TECHNOLOGIES AMPLIFYING GENDER OPPRESSION

In the CTCs, women's experience with digital technologies was hindered due to the discriminations that materialized in such spaces. Even though women found ways to partially address their information needs and still access digital technologies, such access exposed them to other forms of oppression such as digital abuse, sexual harassment, and surveillance. In this section, I go beyond the notion of barriers established in the CTCs to tell the women's stories about their uses of digital technologies and how such uses exposed them to additional oppression. This returns to this book's central point: that digital technologies alone are insufficient to combat oppression. Instead, we should consider how the spaces of CTCs, although contested, provide a social environment to combat oppression in favelas.

In 2013 and 2014, during my fieldwork, every adult I interacted with in Territory of Good owned a cell phone. However, only eight adults out of thirty-six owned a smartphone or a *xingling*, and they didn't have a data plan. The other twenty-eight adults had a feature cell phone. Among the eight adults with smartphones, five were women who worked all day as housemaids, cashiers, or janitors. Their phones were their main channel to communicate with their bosses and (when at work) to check in with family members. Although they used their phones mainly for instrumental

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purposes, they all showed interest in recreational uses. However, they simply didn't have the time for that. They were too busy at work and afraid of getting robbed on their commute. Home offered no respite from work. Isabela (thirty-seven years old) summarized her complaints:

> I got this phone at the VIVO store. . . . It's a shitty one; I am still paying the installments. I can call and text my husband to check in. I can also play some games. Look at these [that] came with the phone. The problem is that when I get home and can finally enjoy the phone, my two girls come running and take it from me. They start playing games and I don't get to have fun—instead, I go straight to make dinner. It's a bit frustrating because this doesn't happen to my husband. . . . He's always yelling that his phone is for serious stuff.

Not only did women have to do house chores on their own, but their children would take their phones from them for their own fun. These women experienced what Ruth Schwartz Cowan (1983) called "more work for mother": modern technology seemed at first to offer less-privileged women middle-class standards of comfort. However, these artifacts mainly replaced work previously conducted by men and children. As a result of a gendered displacement of housework, instead of having time to enjoy her phone, Isabela had to give it to her children so she could do all of the chores.

In Territory of Good, the smartphones of women were perceived by their family members as an entertainment technology. Women's phones were always available to children, while men's phones were perceived as work technology for "serious stuff." In the case of Isabela, even though she was the one paying for her phone, her husband still stipulated how her phone was to be used: "to check in with him" and entertain their children, reinforcing the typical patriarchal hierarchy in Brazilian households. Brazilian society, for the most part, believes that the husband should be the "breadwinner" of the family and the wife must "give respect" and behave according to traditional family models (IPEA 2014). In the case of Neuza (twenty-seven years old), because her husband bought her an expensive smartphone, he felt entitled to search her phone without her permission. "When I go home, and finally go to bed, my husband waits for me to fall asleep so he can look over my phones, where I went, who I call. I get in trouble if there's a guy that he doesn't know in one of the photos or a phone number that he doesn't recognize. I see him go over my stuff, but I just pretend that I'm sleeping. If I say something, he will also hurt me." Even

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though Neuza didn't agree with her husband invading her privacy, she preferred to remain silent because she feared for her physical safety.

Neuza's fears were well justified. As described in the beginning of this chapter, Brazil remains a very dangerous country for women, even inside their homes. In 2013, among the 4,762 homicides whose victims were women, 50 percent were committed by family members—an average of seven homicides per day. Partners or ex-partners were responsible for 33 percent of these murders—or about four daily victims (Waiselfisz 2015). According to philosopher Sueli Carneiro (2003), private family space, which should be for refuge and peace, is where domestic and sexual violence is most prevalent. In most cases, perpetrators of sexual abuse are husbands, partners, parents, stepparents, uncles, or other close family members.

I noticed the lack of trust in women not only among their husbands but also in their work environment. They used mobile phones to respond when their bosses acted with suspicion and distrust when something went wrong at work. Perla (thirty-one years old) described her experiences as a house cleaner for a family with three children. "And for the things that go missing, oh boy! She gets suspicious of me, as if I stole them. That is fucked up! Poor and Black people always get blamed for everything. So now, with my phone I take photos of everything once I'm done cleaning and send them to her. I'm a proud *favelada* . . . and she acts all defensive, as if I didn't have to do that. Ugh. I wish I could quit, but I need the money." Accusing maids and houseworkers of theft and breaking things is quite common in Brazil, as anthropologist Jurema Brites describes; such accusations are the result of a tacit acknowledgment of the extreme inequality that separates domestic workers from employers: "If, in the eyes of employers, domestic workers are likely to pilfer, is it not for lack of basic necessities?" (2014, 68). Brites further claims that "the accusations made by bosses and foreseen by domestic workers point to a communication process between the parties. Both parties involved in the conflict develop together the grammar involved in accusations of theft, almost in a performative ritual, where both the actors and the audience already know the script of the affair" (69). Nonetheless, Perla was not willing to take part in such a script with her boss; by using her smartphone as a Mundane Technology, she was able to break the performative ritual. Instead of taking the accusation with frustration and humiliation, she took charge of the conversation and stood her ground.

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Favela women had difficulty finding safe spaces, even in familiar places like work and home. Perla felt disrespected at work because her boss stigmatized her and was suspicious of her. While she was able to use her smartphone to prove that she wasn't "breaking or stealing things," Perla still had to deal with a mental burden and swallow her pride in order to keep her job. Isabela and Neuza, at their homes, also had to deal with their husbands dictating how their phones were to be used. Telecenters were one of the few safe places for favela women to hang out and socialize, as I described in the previous section. Although the environment of Telecenters was meant to be respectful and inclusive of favela women, they still faced harassment and abuse on online platforms, especially on Facebook. As Clarisse (eighteen years old) reported, the constant unwanted entreaties were a burden. "I get on here [Telecenter], and you know, we are not given much time. It's only one hour. I want to relax and hang out on Facebook. But before I can have fun, I have to deal with all these notifications. It's on your Face and annoying. As you can see . . . look at this . . . all men wanting to friend me. I don't know them. But you know very well what they want, right?"

Telecenter users often felt pressured to get on the computer and do things as quickly as possible to make the most of their one-hour slot. However, favela women had to deal with greater pressure since they had to waste time dealing with unwanted messages and friendship requests from men they didn't know. Amanda (eighteen years old) told me about her experience when the generalized harassment Clarisse described turned into explicit sexual harassment. "One day, I got a friendship request. I saw that we had about seven friends in common and I thought the guy was someone I knew, you know? Someone that I wasn't remembering. So, I accepted it. One day later, look at what he sent me [showing their Chat window on Facebook]. It's his dick . . . his fucking dick! Why on earth would I want to see his fucking dick? You see?" she said with a sigh. "It's so bad and embarrassing. . . . What if someone walks behind me and sees that I'm looking at someone's dick? I would get in big trouble."

Although women worldwide receive unsolicited and indecent photos, those received by favela women revealed a form of sexual harassment inscribed by intersections of race, gender, and class. I was able to approximate the social status of harassers by viewing their online profiles and photos, finding that they were mostly White upper-class men. The sexual

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harassment often came with messages in which the men promised to give them a "better life." Laura (sixteen years old) showed me the messages she received on Facebook Chat from two different men, who wrote, "You don't need to live in this dump [favela] . . . you deserve better" and "I will get you out of this favela, and we can live happily ever after." Laura told me that she knew that these men were not willing to provide her and other teenage girls with some sort of social ascension; they only wanted "easy and quick access to sex." It's important to note that while I am not able to affirm that the White upper-class men knew Laura was underage, she was still a teenager that had to deal with sexual harassment on her own. White upper-class men have a long history of colonizing and sexualizing the bodies of Black women from favelas. As anthropologist Valeria Ribeiro Corossacz (2014) explains, racism and sexism in Brazil are sociocultural practices that condition the affective preferences of upper-class men. These preferences materialize in the racialized and sexualized bodies of Black women. They appropriate their bodies as objects, as if the women had no desires or feelings but were available at men's convenience (Giacomini 2006b). In Brazil, the sexualization and objectification of Black women's bodies have been disguised as the product of the national ideology of racial democracy—an erotic and exotic fantasy that distinguishes Brazil and its sexuality (Corossacz 2014).

As I observed, the sexual harassment that favela women experienced online harmed their emotional and mental well-being, leading them to self-loathing. They also felt embarrassed and helpless because they didn't seek out support. After all, they feared they could get in trouble if they told the Inclusion Agent, since pornography (even in unsolicited messages) was not allowed at the Telecenters. However, they also couldn't get help at home, because they could get in trouble with their husbands—as previously described by Neuza, who was afraid that her husband would physically hurt her if he found content from another man on her phone. Younger women didn't tell their parents because they feared that they would be forbidden to get on Facebook again, as mentioned by Juliet (seventeen years old). "These nasty guys send these nasty things. Oh my God. It's gross. If my mom sees this, she would never allow me back on Face. Just today, look, three guys [who sent her pictures of their penises] that I don't even know who they are. . . . It's okay, though; I just ignore all of this." Juliet dealt with sexual harassment on her own because she didn't want to lose her Facebook

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privileges. After all, the Social Network Site was one of the only ways she could safely chat with her friends.

However, not every favela woman was able to ignore digital abuse and sexual harassment. Some of their experiences were too much for them to cope with, leading them to withdraw from participating in online communication. Jaciara (nineteen years old) believed that going on Facebook forums exposed her to additional harassment. "There's a Facebook group that is quite popular in Vitória—it's called Utilidade Publica—ES [Public Utility—ES]—where people ask for service recommendations, missing pets, city updates, et cetera. One day, people were talking about the protests that were going to happen in Vitória in June. It was a very vague post, so I asked for more details. . . . In twenty minutes, I got four friendship requests from men that were in that group. I checked them. I felt so bad that I deleted my post and left the group . . . and never found out about the protests." In Jaciara's case, online harassment made her unable to participate in the type of political events often regarded as a benefit of digital technologies.

The consequences of harassment followed by withdrawal led many favela women to leave Facebook's community-oriented groups and avoid social interactions. Such consequences forced women to make themselves invisible in online spaces, contributing to the perception that they are rare in such environments. The Facebook group Utilidade Publica—ES was one of the main spaces where people from all over the state of Espírito Santo discussed ideas and advertised events. As mentioned by Jaciara, because she was targeted and left the group, she was not able to learn about and attend the 2013 protests (which I describe in greater detail in the next chapter). These events were the largest social manifestations in the history of the country. Hence, online harassment limited her civic engagement. The harassment also limited women's political engagement because they were discouraged from going on public officials' Facebook pages to voice their concerns. Jaciara tried again to simply learn more about women politicians in Brazil, as she described:

> I learned about Marina Silva. I was looking for female politicians in Brazil. I was amazed by her stories and principles. . . . I mean, she wants to protect the Amazon. It's so ironic to think that it's hard to find someone who wants to save the Amazon in Brazil. Anyway, I went to her page on Facebook, to say something, I can't remember what it was . . . maybe a hello. Then this guy came out of

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> nowhere, commented on my comment, called me a cow, and said that women don't know anything about politics . . . and posted a fake photo of President Dilma. I replied saying that it was not nice, then other guys ganged up on me and called me more names. Just awful! I deleted my comment and will never comment on a public page again.

Other women resisted digital abuse by coming up with a Mundane Technology to bypass harassment to engage politically. This was the case of Clarisse and Juliet, who created fake Facebook profiles with a men's names, photos, and bios. Using this masculine-presenting account, they could go on public Facebook pages and groups and participate without fearing digital abuse and sexual harassment. Fox and Tang (2017) observed something similar to this Mundane Technology, which they called "gender masking." Women in online games used male (or gender-neutral) avatars and screen names in order to pass as male gamers to circumvent gender-specific harassment. This Mundane Technology seemed a better coping strategy than avoidance, since women were able to participate in public Facebook pages without fear of retribution. However, just like avoidance, it still rendered women invisible. They were passing as men, and likely contributing to the perceptions that women weren't politically active in online spaces.

Although Facebook opened up new space for patriarchal oppression, it also afforded women a place to organize themselves and develop their own coping mechanisms—even if these opportunities were not comparable to the amount of harassment and abuse they received. The Mundane Technology they developed was to create or find women-only support groups. In these safe spaces they could learn and discuss topics that were considered taboo in Territory of Good, such as feminism. Bia (twenty-seven years old) described her excitement at discovering spaces for talking about feminism. "I've always been interested in feminism and empowering women. I searched for feminism on Facebook and found a great group. I started to have contact with feminist content . . . to listen, read, you know, in fact, opinions that I had never thought of. I met some amazing women on there. I found my people, my identity. You can't find that in here [Territory of Good]. Feminism has been demonized; they think it's just crazy when women don't shave their armpits."

In Brazil in general, people perpetuate old stereotypes, such as that feminists hate men or think they are superior to them. Brazilian men disqualify

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feminists' ideas by criticizing their appearance ("ugly" or "unshaved armpits"), their sexuality ("they are lesbians" or "don't get enough sex"), or even the clothes they wear ("masculinized") (Tancredi 2018). In short, for many in Brazil, *feminism* became a curse word. Feminists, in turn, ended up being falsely associated with an aggressive and quarrelsome image: "hysterical women who complain." Such stereotypes made it hard for the feminist movement to expand into every sector and class of Brazilian society. In my conversations with young women from the favelas, they mentioned that they were not exposed to feminist ideas and didn't know much about the movement. As Bia mentioned, the feminist movement was demonized, and finding out about it became difficult—making vital information about women's health scarce. Important topics such as menstruation, condoms, virginity, and abortion were automatically labeled as taboo because discussing them was perceived as a "bad idea from feminists." However, a few women found a way to learn more about women's health on the internet, as described by Carol (twenty-five years old). "I have always been very discreet with friends . . . I don't talk about sex, especially with my mother; it's taboo. Even nowadays. My mom thinks I'm a virgin to this day, I think. I come here [Telecenter] very early in the morning, when it is very empty, and google about safe sex, condoms, where to get them for free. Also, about menstruation, I don't know anything about this; I don't know much about intimate hygiene. My mom told me that all of these things were bad ideas from feminists, but the internet has helped me get that information." Carol was able to get the information she needed for the cost of extreme discretion.

Because feminists were vilified, the feminist movement has struggled to become part of the conversations in Brazil's favelas. However, as I listened to Bia, Carol, and other women their age, they could very well become the generation that begins their own feminist movement at Territory of Good. The Mundane Technologies of Telecenters and even LAN Houses can help them build their feminist identity as these places offer a safe space for organizing as well as accessing and producing knowledge. It is important to point out that liberation from sexism, or any other form of oppression of women in the favelas, isn't a matter of throwing smartphones at them or simply designing a new app—it's about opening spaces where they can safely appropriate their Mundane Technologies in order to mobilize themselves toward a quality of life they desire.

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I believe that Paulo Freire came to believe that a feminist identity can inspire women to fight. These centers can also help other minority groups, such as the LGBTQIA community, build their movements. A more robust embrace of feminism might mean that CTCs could draw on their community-oriented approach to provide women with a safe space to share stories, support each other, and receive counseling. As advocated by Freire, in order to effect change, the oppressed—in this case women—must cooperate, unify, mobilize, and synthesize their cultural actions to redefine the parameters of oppressive social structures (P. Freire, 2000). Specifically, I believe that CTCs should develop workshops, as described herein and in chapter 2, to discuss taboo topics such as sex education, women's health, and feminism, as well as how to cope with digital abuse and sexual harassment. Clearly, given the prevalence of harassment among teenage boys, these workshops should also be open to young men. Sambasivan et al. (2019) reached a similar conclusion, saying that educating internet users about how to equitably and respectfully interact with women online can be more effective than demanding that women claim online spaces and deal with patriarchal oppression by themselves. In this chapter I have described why placing the burden on women alone will not work. In other words, men need feminism too.

Although patriarchal oppression through sexual harassment and digital abuse is prevalent and powerful on social media, women from Territory of Good were able to consciously acknowledge it and take advantage of their Mundane Technologies to cope by creating fake male profiles and women-only Facebook groups. I am sad to admit that their late exposure to feminist ideas and their Mundane Technologies may not really help them dismantle the current patriarchal structure that oppresses them. However, given the attitude and persistence that I felt each time I interacted with favela women, I feel assured that they are ready to join the growing fourth wave of feminism[2] and to raise the next generation of favela feminists to lead their communities and country to a more just future.

2. Fourth-wave feminism is a feminist movement in which groups, "instead of returning to a centrally organized social movement, [are validating] the contributions of young people and are reviving activism with the help of digital platforms" (Blevins 2018, 91).

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6

# GEOGRAPHIES OF OPPRESSION

## *Uncovering Spaces of Silencing*

> Where there is power there is resistance.
> —Michel Foucault (1978, 95)

Social media platforms have supposedly initiated a new age of the internet. Companies promise to empower their users, promote creativity, and democratize information production (O'Reilly, 2007). Such technocratic rhetoric has encouraged the general public to believe that social media platforms, such as Facebook and Twitter, will grandly bring about social change by fostering democratic actions and inclusive activities (Nemer 2016a). As evaluated by David Brake (2014), the consensus view espoused in contemporary books and popular media is that social media platforms are beneficial—or, at the very least, play a benign role in society. However, their accounts often fail to consider the underlying social factors and complex power relations that happen outside technology that shape our experiences on social media. In fact, social media platforms—as with any new technology—amplify current social conditions more than act to usher in transformative social change.

In that vein, this chapter shows how the classism and racism present in Brazilian society was amplified on social media platforms and how social media's affordances led favela residents to face violent acts of racism. This chapter brings earlier themes in this book together with a more explicit interrogation of geographies of oppression in favela life to show how residents' Mundane Technologies encouraged them to cross social boundaries. However, once they reached physical spaces that were not designated for them, they experienced prejudice—similar to the Orkutization I described in chapter 4—from wealthy and upper-class people, who not only were unwilling to share the same offline spaces with them but actively worked to oppress them.

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As defined in chapter 1, *Mundane Technologies* refers to processes of the oppressed appropriating everyday technologies—artifacts, spaces, and operation—to alleviate oppression in their everyday lives. Throughout the book, I show how favela residents suffered all kinds of oppression. Even after finding some liberations through their Mundane Technologies, they were exposed to other kinds of oppression. For example, women appropriated CTCs but still faced gendered oppression. Oppression, as a whole, cannot be dispelled with a click. Rather, it has different forms and levels that require different strategies to be dismantled. Thus, each Mundane Technology can only liberate from a specific oppression, or a set of oppressions, rather than from *every* form of oppression. Each Mundane Technology is one step in the process of *becoming*, as Paulo Freire (2000) called it, in order to transform themselves and their world. Therefore, the goal of this chapter is twofold. First, so far, I have mostly focused on Mundane Technologies and oppression in the physical space of the favelas; in this chapter I show how Mundane Technologies afforded favela residents the ability to challenge social boundaries and mobilize themselves to explore different geographies. Second, after presenting these liberations, I return to an intersectional approach to vividly describe the successive oppressions (classism and racism) favela residents faced in those different geographies.

To achieve understanding of how these geographies of oppression were created and reinforced, I analyze two cases. First, I tell the story of the protests of June 2013, when students and Brazil's upper classes organized protests on social media. However, the social and digital inequalities in Vitória prevented favela residents from fully experiencing the protests. Limited political engagement was an important symptom of geographies of oppression and a retort to the too-easy claims that social networking sites are levelers of inequality. Second, I consider *rolézinhos*, which translates as "little strolls." Black teenagers from Territory of Good arranged meetings on Facebook to leave their favelas and hang out at the mall, a place traditionally made for the White and rich. Their experiences show how their efforts to join public spaces and take part in activities that were designed for members of the upper class were rebuffed. Through presenting these two cases, I show that Mundane Technology afforded favela residents only limited ability to protest and cross social boundaries, because their actions brought a vicious backlash of social exclusion and police brutality against Blacks and the poor.

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## THE SOCIAL MOVEMENT OF THE OPPRESSED

On October 30, 2007, Brazil received the most anticipated news in years. The land of soccer was again selected to host the FIFA World Cup in 2014. The country had hosted the tournament only once, in 1950. After three failed bids, soccer was finally going back home. The announcement was celebrated by Brazilians as if the country had already won its sixth Cup. The stakes were especially high. As Patricia Hill Collins and Sirma Bilge (2020) explain, the payoff for a Brazilian team winning in their own country would be immense. Victory, both on the field and via hosting, would signal Brazil's arrival as a major economic player and attract global attention. From the perspective of Brazil's policymakers and financiers, the possibilities of reaching a massive global market were endless (Collins and Bilge 2020). The Brazilian people hoped that the government would finally solve the country's fundamental infrastructural problems. Their hopes were fueled by strict FIFA requirements that the country's stadiums, urban mobility, airports, ports, and communication and electrical grids meet high standards in order to be eligible to host. Six years later, as Brazil was getting ready to host the 2013 FIFA Confederations Cup—an official test event for the 2014 World Cup—the excitement that had enthralled the Brazilian people turned into deep frustration. Instead of occupying the streets to watch the men's national team play, as Brazilians commonly did, they were out protesting.

That June, Brazil was hit by the largest series of protests in more than two decades, when people went to the streets and demanded that President Fernando Collor be impeached. In this wave of protests, known as the Jornadas de Junho or June Journeys, more than two million people in over four hundred cities took to the streets (Antunes 2013). The initial protests took place in early June in the city of São Paulo, where students took to the streets to protest city and state government decisions to increase the bus and metro fares from R$3.00 to R$3.20 (Saad-Filho 2013). In response to the decision to raise fares, on June 6, 2013, the Movimento Passe Livre (MPL) or Free Pass Movement also organized a protest that brought together more than five thousand people on Paulista Ave. (Josué Medeiros 2014). Between June 7 and 13, 2013, the MPL organized three other protests that assembled more than fifteen thousand protesters throughout downtown streets. This public pressure brought a turning point. After an intense media campaign calling for the repression of the "vandals" and "rioters," the military police

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harshly repressed MPL protesters by using tear gas, flash bombs, and rubber bullets. Several people were arrested and numerous protesters were injured, including twenty-two journalists covering the protests (Antunes 2013).

The images and videos of police brutality against students, arbitrary arrests of the press, and violent acts in São Paulo hit the rest of the country. They were the last drop that spilled a cup filled with exhaustion. Such exhaustion was driven by the accumulated frustrations with the privatized "public" transportation, inaccessible health care, flawed public security, and degraded public education. The population seemed to have finally reached its point of saturation caused by years of corruption schemes and neoliberal policies in the country. Brazilians were also frustrated by the cost of hosting the upcoming World Cup and Olympic Games in light of economic disparity and lack of decent public services. First-world FIFA standards demanded useless stadiums to be built, rather than decent public schools and hospitals. One of those stadiums, Amazon Arena—estimated to have cost taxpayers between R$624 million (approximately US$270 million)—now sits in Manaus as a white elephant. It's quite hard to look at what happened there, and in the rest of the country, and not be reminded of Fordlandia (Grandin 2009)—an arrogant attempt to impose Northern ideals and standards to tame customs and culture and create an ideal city for the enjoyment of Northerners.

The first nationwide protests that took place on June 17, 2013, were also the first to happen in Vitória. It is important to note that the beginning of the June Journeys did not have planning committees or decision-making centers. Rather, they were organized by groups from different sectors of society. Social media, especially Facebook, played an important role in getting people informed about dates and meetup locations. In Vitória, I noticed that university students and members of the middle class were the protesters most active in defining meetup places and times. They used two popular Facebook groups to announce their ideas: Utilidade Publica—ES (Public Utility—ES) and *Não é por 20 centavos* (It's not just 20 cents). The first protest in the city gathered more than twenty thousand people to start marching at the Federal University of Espírito Santo. They walked eleven kilometers, passing through the most important avenues in the city, until they finally reached the official residence of Espírito Santo's governor, Renato Casagrande (Nossa, Tedesco, and Borges 2013).

Some protesters brought white flowers as a gesture to show the military police that they had come in peace. They raised high their cardboard signs

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and banners to display their messages and demands, many of which referenced social media with hashtags, including #VemPraRua—which translates to "come out to the streets"—and PEC 37 #DigaNão—which means "say no" to the constitutional amendment proposal to remove federal prosecutors from police investigations. Another popular hashtag, #OGiganteAcordou (the giant awoke), referenced Brazil awakening from its historic disinterest in mass political protests. Messages such as "We left Facebook" were commonly seen, saying that the protests were real, not just slacktivism.[1] Yet, these references to social media showed how important the platforms had become to affording a space to protesters to debate and organize.

I joined the June 17 protest to observe the unfolding events. But I was not able to identify anyone from Territory of Good there. In fact, none of the favela regulars that I interacted with had mentioned the protest. The protesters were mostly White and wearing clothes of typical upper-class citizens. The following day I went back to the favelas and asked folks about the protests. Most of them did not know anything about them. They gave a response similar to this one from Thais (seventeen years old): "I heard about the protests in Rio and São Paulo on TV, but heard nothing about the one that happened here. . . . Even if I had, why would I go there? To get beat up by the cops? We already get enough of that here in the community." To her, the protests just invited harassment and brought trouble to the favelas.

The news outlets in Vitória did not report widely about the protests there. It seemed that they did not expect the protests in Vitória to gather a large number of people. Instead, local media focused on larger cities, such as Rio de Janeiro and São Paulo, where other protests had already happened. In Vitória, conversations about the local protests were mostly happening on Twitter and Facebook groups. In response, I decided to analyze the groups' lists of members to see who was talking about the protests. Just like at the protests of June 17, I didn't recognize anyone from Territory of Good in these groups. I posted a message on the Public Utility—ES group, which had 22,521 users at the time, asking if anyone was from the area. I did not get a single positive response; instead, thirty-six people responded no to

1. *Slacktivism* has been used in a negative sense to belittle activities that do not express a full-blown political commitment (Christensen 2011). The concept generally refers to activism that is easily performed on online platforms, which is considered more effective at making the participants feel good about themselves than achieving the stated political goals (Morozov 2009).

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my post. Since the group members were mostly students and belonged to the upper classes, information about the protests never reached Facebook users from marginalized classes. The social divide of geographical place, class, and race that defined Vitória was being mirrored online. The upper-class and lower-class social networks did not overlap significantly enough so their members could discuss the protests.

The protests of June 17, 2013, were considered a success because they gathered more than three hundred thousand people throughout Brazil. Protest organizers gained interest and attention from national media, local TV channels, and newspapers. They used these media platforms to announce a new protest for June 20, hoping that more people would join them. Since protesters made information about the new protest available through less exclusive mass channels, the residents of Territory of Good became aware of the upcoming protest. In response, they started their own Facebook group to organize and discuss their list of demands—their Mundane Technology. To encourage people to join the protest, Roni (eighteen years old) posted several messages with the hashtag #VemPraRua with the date and place to meet. He told me, "We can't be afraid of getting beat up. . . . That's already happening. If we don't do anything then things won't change and my people from the favela will still have no access to education and health care. . . . I don't want this life. . . . We already have 107 people in the Facebook group and they all said they are going to the next protest."

The organizers' new strategy worked. The protests of June 20 made history by gathering more than two million people in more than four hundred cities across Brazil (Agência Brasil 2013). In Vitória, one hundred thousand protesters—one third of the city's population—showed up in the streets, forming the largest public demonstration ever registered in the state of Espírito Santo (Nossa and Borges 2013). Roni's strategy also worked, as he organized a group of thirteen people from Territory of Good. Joining Roni and his group, I noticed that their demands were quite different from those who belonged to the middle and upper classes. They were asking for better living conditions in the favelas, demanding more respect as citizens, and calling for an end to the drug war. We walked with the other protesters until the end of Nossa Senhora da Penha Ave. and went back to Territory of Good before it got too late and dangerous to walk around the favelas. On the way back, Roni told me that he considered their participation in the protest an important beginning for the residents. He said that "it is just

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the start . . . we still have a lot to fight for. I wonder if our voices will ever be heard by the politicians. . . . Facebook turned out to be a good way to reach out for people spread all over the communities." The online platform gave the group the privacy they needed to discuss sensitive and critical issues, such as the drug cartel activities, without getting people in trouble. Roni regretted that the lack of access to the internet in Territory of Good, compounded by the social divisions in Vitória, led him and his friends to come late to the protest. However, as I was listening to him speak, I noticed how conscious he was about the social conditions and divisions in Vitória. In Paulo Freire's (2000) view, awareness is the first step toward liberation and social change. According to Freire, becoming aware of the conditions of one's oppression "conscientizes" oppressed peoples and, in turn, makes transformative actions possible.

Facebook provided a platform for the residents of Territory of Good to engage with their Mundane Technology. Through this Social Network Site, they organized and manifested their demands through street protest. Yet, the final demands that were associated with the protests and passed on to government officials were defined by members of upper classes—the main organizers of both protests, as observed by Jefferson (seventeen years old):

> We get here [protests] and everything is already set up. It doesn't matter how loud we scream; no one will hear us. [The protest organizers] don't care about the drug war in the favelas, or the chaotic situation we live in. They just want to demand what is convenient to them. I don't feel that I'm fully contributing to this protest, I'm just another person here. . . . It's an illusion. I don't feel like coming back [to another protest]. We have our own *lutas* (struggles) in the favelas.[2]

Roni and Jefferson highlighted how the social and digital inequalities in Vitória affected the way that information diffused within different social classes, frustrating lower-class political and civic engagement. The upper-class protesters did not invite those from lower classes even as they ironically appropriated the narrative of *luta* (struggle or fight), which is the mindset and action in response to the hardships of everyday life from residents of

2. *Luta* literally translates as "fight." Nevertheless, as described by Leonardo Custódio (2017), favela residents take *luta* to mean mindsets and actions in response to the hardships of everyday life. In other words, *luta*—together with *sacrifício* (sacrifice)—means putting one's own welfare aside for the sake of family and other beloved individuals.

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favelas, who actually depend on public services. As Paulo Freire reminds us, "attempting to liberate the oppressed without their reflective participation in the act of liberation is to treat them as objects that must be saved from a burning building" (2000, 65). Upper-class appropriation is what philosopher Djamila Ribeiro (2019) called the inappropriate occupation of "place of speech." Her concept refers to Michel Foucault's (2002) notion that discourses emerge and transform not according to a developing series of unarticulated words and worldviews but according to a vast and complex set of discursive and institutional relationships *within* power relations. Ribeiro invokes the "place of speech" concept to identify those in positions of domination and oppression—such as those upper-class protesters—that authorize or deny certain groups access to places of citizenship. Since the life of *favelados* has been dehumanized, their experiences and voices are treated in a subordinate manner, compounding social conditions and keeping them in a structurally silenced place (D. Ribeiro 2019).

As for the sleeping giant referred to in the hashtag #OGiganteAcordou, it is important to note that this phrase referred to those in upper-class Brazilian groups that hadn't previously felt the need to occupy the streets due to their cushy living conditions. The "giants" who thought they were revolutionary for taking over the streets to demand things they didn't need barely knew what it meant to be out on the streets. In contrast, the streets were common to favela residents because they became one of the few public spaces where they could voice their struggles against oppressions, even if they were not heard (Sampaio 2015). The giant of the favelas had always been awake and engaged in their *luta*. If the "sleeping giants" weren't aware of that, it was not because they weren't invited to protest with the oppressed—it was because the favela's causes and claims never interested the giants to begin with.

## SOCIAL BOUNDARIES ON SOCIAL NETWORK SITES

As for online spaces, scholars have generally perceived social media as a place where people from different social worlds and networks have better chances to connect and share content (Kaplan and Haenlein 2010; Aaker and Smith 2010). However, that was not the case in Vitória. Instead, people that belonged to different social classes did not easily connect or share content online. The protests of June 2013 exemplified the consequences of such

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social segregation. The organizers of the first protests belonged to middle and upper classes that did not overlap with lower classes online and offline. Thus, the marginalized came late to the streets, and their voices were not heard as much as those of more privileged rich visitors.

The protests followed Earl and Kimport's (2011, 204) expectation that "social networking sites like Facebook will encourage new uses and dynamics of online protest. With the ability of social networking sites to connect and maintain social relationships as well as telegraph action immediately, these sites might . . . represent collective participation, alerting members of a network when their friend participated in an action." However, the protests also contradicted the authors' suggestion that Social Network Sites could bring different social worlds together around specific actions. Technical opportunity did not result in people crossing entrenched boundaries of race and class.

Social network sites were an important space for civic and political engagements, even as they amplified preexisting social tensions. In the case of the June 2013 protests, although Facebook afforded organizing, it is also important to look at who was organizing and participating in these social movements so that we have a better understanding of where the demands were coming from and whom the demands benefited. This information reveals that technological affordances are not neutral on questions of power. That is, scholars (D. Norman 2013; Soegaard 2017; see Bonderup Dohn 2009) have assumed that technology affords a certain "action possibility" regardless of whether people have quite different histories. However, as I reported in the discussion of the 2013 protests, power and background determined how information flowed on Facebook. When favela residents joined the protests in Vitória, they joined a group that had already stipulated an agenda with demands from members of middle and upper classes—the first adopters of the protests. As a result, the demands of the disenfranchised were less heard than the demands of the upper classes. In addition to the lack of social ties between people from different social classes, the social conditions of the poor influenced their civic engagement, as reported by Leticia (twenty-seven years old):

> Listen, I don't have internet with me all the time to know what is going on. . . . I don't have access to that kind of information, and even if I had, how can I go to these protests? I have to work all day long, put bread on the table and take care of my children. . . . I can't pay anyone to do that for me; besides, tomorrow I have to be at work; if I miss one single day, I'm back on the streets. . . .

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> If I go, how will I return home? By taxi? [ironic laugh] I don't have money for that; also these protests end late and things get really dangerous here in Bairro da Penha at night. Even if some changes happen, we all know here [in reference to the people from the favelas] that these changes won't be for us.

As much as the internet is considered an open and democratic space, the online space used for the organization of the protests was built over Facebook's dialectic of code. Through Facebook, spaces were created in social media platforms with both the potential to empower and to control political participation (Kitchin and Dodge 2011). In Vitória, the ability of a person to engage in protests and civic actions depended on their offline social location: their location determined how they would gain access to information (in this case the internet) and the necessary conditions that enabled participation. Situating civic engagement in the spatial dynamics of neighborhoods challenges the familiar and simplistic techno-optimistic claim that the internet is a major catalyzer of social change for anyone. Rather, it alone doesn't provide a democratic and inclusive space where everyone has a voice. During the June Journeys, the residents of Territory of Good showed up late in the protests not because of the lack of proper internet connection but mostly because of persistent social segregation in Vitória. Bringing more internet-based services will not fix social maladies rooted in deeper social divisions. These divisions—the very ones that favela residents protested during the June Journeys—go beyond the domain of technology. Hence, the idea that technology by itself promotes some grand authoritative social change must be interrogated so we can understand how to promote a less oppressive society.

## THE ORKUTIZATION OF *SHOPPINGS*

Residents of Territory of Good appropriated Facebook groups as their Mundane Technology, as described in the previous section. They organized their own protests during the June Journeys and freely communicated with friends and other residents without fear of oppression. Some teenagers of the favelas used these groups to promote themselves and share self-made digital content in order to become *famosinhos* (little famous ones).

*Famosinhos* became a popular term in Brazil's periphery in 2013. The term referred to teenagers whose presence on social media made them

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famous among their fans. In Territory of Good, *famosinhos* were the most popular teenagers who dictated teen fashion trends and playlists. They actively cultivated their reputations by posting videos with dance moves known as *passinho*[3] and memes to show off their apparel. Their ostentatious behavior was influenced by *funk ostentação* (funk ostentation). While Brazilian funk started in Rio de Janeiro's periphery, funk ostentation—a variation centered on conspicuous consumption—had its roots in Baixada Santista, a metropolitan area located on the coast of São Paulo state. Funk ostentation songs talked about the real consumption and the consumption dreams of the periphery. Their lyrics constantly referenced sophisticated brands, cars, motorcycles, and imported liquor, such as Grey Goose Vodka. The forerunners of the movement claimed to have been inspired by US rappers who displayed jewelry, cars, luxury clothing, and mansions in their music videos (Manso 2013).

The *famosinhos* from Territory of Good often watched YouTube videos to learn new *passinhos* and tried to replicate them in the Telecenters' waiting room. In Telecenters, even boys showed off their dancing skills to impress the girls. *Famosinhos* worked hard to create digital content that showed off their Nike or Puma shoes, brand-name T-shirts such as Lacoste and Polo, and, sometimes, thick gold necklaces. *Famosinhos* didn't tell me where they purchased their clothes. However, by looking at their tags, I could tell that some apparel was original but most was counterfeit. The *famosinhos'* goal was to promote the idea that they had the resources to purchase material goods, which put them in a higher power position when compared to other teenagers—some of whom became the *famosinhos'* fans. João (seventeen years old) summarized how he became a *famosinho*:

> They say that being famous on Facebook is like being rich in the board game Monopoly: the money is useless. . . . But it doesn't matter because I have this [showing his T-shirt and his shoes]; I want to be like those MCs from funk ostentation. My fans look up to me, give me lots of respect and I earned it! I spent several hours at the Telecenter and attended the workshops to learn new tools and to be creative. . . . Now I can make videos and talk for my peers about what we want and what we need. . . . Being a *famosinho* also gives the opportunity to fight for what we want.

3. *Passinho* (little step), a common dance move at funk parties, is characterized by patterns of rapid foot movements facilitated by sharp twists from the waist (Cronin 2016).

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*Famosinhos* from all over Brazil organized events on Facebook so they could hang out with their friends and meet their fans in public spaces, especially in places outside the periphery like *shoppings* (shopping malls). These meetups were called *rolézinhos* (little strolls). In October 2013, *rolézinhos* started to take place at malls throughout the country. Although *rolézinhos* became famous for occupying *shoppings*, João's first meetups took place in the local square of Itararé, known as *pracinha*. The friends and fans of João joined his *rolézinhos* to sing and listen to funk, to meet other teenagers and make out, to hang out with him, and to just goof around.

On Facebook, João followed other *famosinhos* from cities like Rio de Janeiro and Belo Horizonte (BH) to get new ideas for his digital content and activities for his *rolézinhos*. In a conversation that happened right after one Telecenter workshop, he mentioned that he had seen a post about a *rolézinho* that had happened in August 2013 at a mall in BH called Shopping Estação. This post gave him the idea of doing the same at Shopping Vitória—the most famous mall in the city. As João's *rolézinhos* gained popularity, he felt more confident, which drove him to organize his next meetup at Shopping Vitória. He told me, "You can see that this week's *rolézinho* at the *pracinha* was much more crowded. . . . Man, I'm becoming like a real celebrity. With a large group, I won't be afraid of hanging out at Shopping Vitória. . . . We can totally go to the *shopping* and no one will mess with us."

In Brazil, shopping malls went beyond being places to be entertained, hang out, and shop. They were places where the upper class showed its purchasing power and social location (Bienenstein 2009). The buildings seemed opened to anyone; however, the tacit membership requirements to join such a "club" were credit cards and wallets that could afford to buy the mall's products. Although *shoppings* attempted to advertise their spaces as welcoming and hospitable to everyone, their environment rejected people who couldn't afford their products or looked like troublemakers—which is how shopkeepers perceived favela residents (Nascimento et al. 2015). As I observed in Shopping Vitória, Black people mostly occupied the "hard areas"—a term coined by anthropologist Livio Sansone (1996) to define areas Black people were allowed to occupy and couldn't travel beyond. Sansone defined "hard areas" as (1) the job market (mall workers), (2) the marriage or flirting market (as described in chapter 5, when upper-class White men used Facebook to prey on the women of favelas), and (3) contact with the police or mall security. For Black people, hanging out outside of these hard areas, as João planned for his

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*rolézinho*, meant exposing themselves to prejudice and judgment that could push them back to the third hard area, where they would face police brutality. This was exactly what happened to João and his friends.

Although João was very confident and excited about the idea of having a *rolézinho* at Shopping Vitória, he was also concerned about the potential dangers they would face there. He described his feelings of being an outsider: "You know . . . you get there and people look weirdly at you. Their judging eyes scream "What are you doing here?" . . . The judgments about us not belonging there also come from Black mall workers who have to follow orders." Due to his uncertainty of how mall-goers would receive his *rolézinho* and to avoid calling too much attention to it, João only invited a few friends in person and did not create a public Facebook event. On November 30, a Saturday, João assembled six of his friends at the *pracinha* of Itararé, where they took bus line 031 to Shopping Vitória. The mall was centrally located in the city, outside the favelas, which meant that they had to cross Leitão da Silva Ave. As I described in chapter 1, this road served as a symbolic social boundary that separated the poor and Black areas from the wealthy and White areas of Vitória.

They hopped off at the Shopping Vitória stop and walked to the entrance. Before going in, João laid out the plan, saying, "All right, let's do one lap on the ground floor, then let's go check out the new area. I heard there's a new Lacoste store there . . . of course we will just window shop. Then let's go eat at Mac [McDonald's]. Sounds good?" Everyone was on board and excited to be there, but João had already sensed the feared "judging eyes" on them: "As soon as we stopped at the entrance, a security guy kept watching us and talking on his walkie-talkie." Thus, João didn't want to spend too much time there and rushed to get inside. They started by strolling through the ground floor, and after thirty minutes of their *rolézinho*, a huge stampede of people rushed through the mall as some tried to exit and some tried to find shelter inside the stores that were closing their doors. João and his friends felt startled and did not know what to do, when all of a sudden two police officers came in their direction and pushed them into an agglomeration of Black young men. Silvana, one of João's friends, was pushed away from the groups by the officers.

Before João and his *rolézinho* had arrived at Shopping Vitória, a much larger group organized on Facebook was already gathering just outside the mall. The purpose of that meetup was to "meet new people and socialize, in

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person, with friends from Facebook" (Bossato 2013, 14). About four hundred people showed up—mostly Black teenagers and young adults from peripheral neighborhoods. The partygoers were playing funk music and having fun. Everything was peaceful until the military police showed up. The reason why they showed up is still unclear; the secretary of public safety stated that the military police were ordered to "go there to patrol a funk dance event, since there were 400 people at the place" (C. M. da Silva and Cruz 2019, 99). However, an interlocutor of the military policy provided a different version, saying that "the Military Policy was ordered, at 6 pm, to clear a road, which had been taken by the party participants" (Hemerly 2013). Either way, it was clear from both statements that no crime was reported to the police. If the problem was just an obstructed street, the question is, Why was the military police called instead of the municipal guard, who is responsible for the city traffic? As stated by Silva and Cruz (2019), the interlocutor did not say that the police went to the meetup to encounter the participants; instead, they positioned themselves in a tactical deployment and stood ready in case something was to happen. These officers were ready to use force to clear out the street.

As soon as the military police showed up at the meetup, the environment became very tense as the participants were rightfully bothered by their presence. In Brazil, most of the violent acts by police officers are against Black people and favela residents. According to the Brazilian Forum on Public Security (*Anuário Brasileiro de Segurança Pública* 2018), a Black man is 2.3 times more likely to be killed by police than a White person. In 2018, almost five thousand Black Brazilians, most of them young men, were killed by the police. Brazil's Black population is almost three times the size of the US's, and Brazilian police killed 18 times the number of Black people that US-American police did in the same year (Bulla and Lindner 2020). As the meetup got more tense, the roar of motorcycles driving by was mistaken for gunshots. Fearing that an attack from the officers was imminent, the meetup participants got scared and rushed inside Shopping Vitória to find shelter and safety.

Upon entering the mall, the Black young men were chased by the military police, scaring the people who were already inside the mall and causing a stampede. Mall security and store employees rushed to close their stores, as people ran inside and sought shelter without knowing what was happening (Bossato 2013). The military police occupied the mall and initiated an

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arbitrary procedure of approaching and detaining Black young men who looked like *favelados*. That was when the officers grabbed João and his friends. Even after they searched them and found that they had not committed any crime, they took João's group to the food court of the mall, then made them remove their shirts and sit on the floor with their hands clasped at the back of the neck, surrounded at gunpoint by police officers (Bossato 2013).

After that, all the Black young men were lined up and forced to put their hands on each other's shoulders. Military police marched them to exit a public space, even though no crime was committed. Mall-goers photographed and filmed the whole event, later posting the scenes on Facebook. These mall-goers, mostly upper class and White, did not have to face the same suspicion, search, or humiliation at the hands of the police. They actually supported the police brutality by applauding the police and booing the Black young men as they were forced out of the mall. What happened inside Shopping Vitória follows sociologist Sérgio Adorno's (1996) description of racism in Brazil: Blacks are located at the lowest level of the social hierarchy, a social exclusion reinforced by prejudice and stigmatization. To White residents, Black citizens are perceived as potential disturbers of the social order, even when they are innocent, which is most of the time.

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João and his friends regrouped after the police officers marched them out. João protested, tearfully saying, "I don't even need to say anything. This is what happens when a Black *favelado* goes to the *shopping*. Do you think this would have happened to us if we were White?" Silvana was already outside waiting for them. She was disheartened by how João's *rolézinho* was harassed by the police and vilified by people at the mall. She saw meetings organized through Facebook as a powerful way to show society who they were and what they wanted:

> We didn't want to cause any harm; we just wanted to walk around with our *famosinhos*, hang out with our friends, take photos at the mall so we could upload them to Face [Facebook]. . . . I finally ate at McDonald's, which was like a dream come true. . . . I can't go there by myself . . . I'd be tortured by those judging eyes. It's sad that the police are treating us like that. . . . We don't have cool stuff here in the favela like they have at the mall. . . . I will organize more *rolézinhos* on Face so we can go as a group and be persistent with what we want . . . which is just to have fun.

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The event hit the news outlets in Vitória that evening. Even though the Black young men had not done anything wrong, stories still presented them as "police fugitives," "panic-causers," and "rioters." These descriptions negatively influenced the opinion of the upper class about meetups and *rolézinhos*, reinforcing them as a type of *arrastão*. The term *arrastão*, popularized by the Brazilian media in the early 1990s, refers to a group of people occupying and surrounding a location, usually a beach, and stealing every object in it. The media, however, has used this term indiscriminately to describe crowds of poor young people in public spaces. These descriptions lead audiences to fear and judge the young people as criminals, but, just as in João's *rolézinho*, they are not committing any crimes. Such reports align with anthropologists Ruth Cardoso's (2011) and Alexandre Barbosa Pereira's (2016) claims that the fear of criminals is actually the fear of the poor. In turn, labeling the poor as criminals is what justifies police violence and makes people see the large number of homicides of poor young Brazilians as their natural fate.

The newspapers of Vitória did not report the police brutality faced by the Black young men and did not widely publish Shopping Vitória's statement, which clearly expressed that no stores had been looted and no facilities had been damaged (C. M. da Silva and Cruz 2019). Thus, those Black young men faced another violence: their reputation was tainted by the media. João and his friends tried to raise awareness at Territory of Good by reporting on Facebook the police brutality they faced. This backfired, scaring and deterring some favela residents from crossing boundaries and participating in the *shoppings*, as explained by Jaciara (nineteen years old):

> I knew this was going to happen, every time I go to Shopping Vitória, the people that work there always look at me with a weird eye. . . . I don't like it; it seems that they don't want me there, or that I will steal something. Now I have one more reason [police repression] to not go there anymore.

Shopping malls were designed to generate feelings such as Jaciara's. As anthropologist Alexandre Barbosa Pereira (2019) explains, malls became successful in large Brazilian cities on the basis of this narrative about violence and fear. Anthropologist Teresa Caldeira rightly identifies in her book *City of Walls* (2000) that fear of violence drove the creation of fortified enclaves, symbolized by closed condominiums and shopping malls. This produced violent segregation that inflicted further violence on residents. As

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for João, his final words about the event were these: "What is the point of being a *famosinho*? . . . What is the point of knowing how to create digital content? . . . What is the point of all this if people will still look down on me simply because I'm Black?"

## "IS IT BECAUSE I'M BLACK?"

João's resentment and residual questions about his harassment explain why so many efforts in the field of Information Communication Technology for Development (ICTD) have failed to bring social justice and liberate marginalized groups. These programs, including the Telecenters at Territory of Good, promise digital equity, "in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy" (NDIA n.d.). João developed information technology capacities as he was, in Paulo Freire's terms, able to determine his own interests and develop skills to address his reality. As he learned, he could progressively free himself from social and psychological constraints, such as the social boundaries in Vitória. His Mundane Technologies helped him overcome his digital limitations, fulfill needs, and exercise human agency. However, once João and his favela friends took their *rolézinho* to Shopping Vitória, they were rejected from participating "in our society, democracy, and economy." The same teenagers experienced a similar rejection when they joined the Social Network Site Orkut and later when they migrated to Facebook (or Orkutized Facebook), as explained in chapter 4. This case echoed sociologist Jessé de Souza's (2019) description of how the naturalization of privilege and the legitimation of inequalities are reinforced by Brazilian upper classes.

This discrimination, driven by racism and classism deeply rooted in Brazil's society (as described in chapter 1), enforced a norm that members of upper classes did not share the same spaces with *favelados*. Although social media and shopping malls technically offered everyone the same affordances, the privileged groups did not want *either* online or physical boundaries to be crossed. As for the meetups of November 30, 2013, which were seen as an act of Orkutization of Shopping Vitória, the prejudice was quickly reinforced by the military police, who acted to brutally round up Black young men and, along with newspaper reports and upper-class spectators, subject them to social and racial trials.

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João's Mundane Technologies afforded him the opportunity to, in Amartya Sen's (2001) terms, mobilize himself toward a quality of life he valued: to feel good by dressing well and being seen at the mall. João's motivation for becoming a *famosinho* was not so much rooted in developing skills to produce digital content or organizing social justice movements; he was more motivated by gaining access to the same clothing brands that upper-class teenagers wore. Other researchers of *rolézinhos* observed the same motivation: consumption of goods (see Damasceno and Grohmann 2014; Pereira 2019; C. C. Abdalla 2014). A consequence of such consumerism, according to Paulo Freire (2014a), is that it could lead the oppressed to reject their objective reality and seek a world that is not authentically theirs. Although *shoppings* and famous brands were not conceptualized to be part of the reality of favelas, appropriating hegemonic spaces and symbols as a political act of resisting Brazil's social segregation held significance for *favelados*, even as it brought them into harmful conflicts with the police who protected White spaces.

Such resistance motivated by consumerist forces provided only superficial prestige and constrained power to lower-class favela residents. While one could claim that *famosinhos* have fallen into what Paulo Freire (2000) calls "false consciousness"—when the oppressed internalize the attitudes and beliefs of the oppressor, embedding them within their own thinking—it is not up to me to judge how favela teenagers should experience pleasure. In this case, they sought pleasure by wearing famous brands and crossing social boundaries to hang out at the mall. Even if João had taken his *rolézinho* to Shopping Vitória to protest or make social justice demands, we could predict how that was going to end. Just as I described the experiences of favela residents in the June Journeys, the confluence of forces in the Brazilian society will always attempt to find ways to silence the oppressed. These forces may oppress subtly, as in the case of the protests, or through force, as with the *rolézinho*. Oppressors, as Freire well observed, "halt by any method (including violence) any action which in even incipient fashion could awaken the oppressed to the need for unity. Concepts such as unity, organization, and struggle are immediately labeled as dangerous" (141). Therefore, regardless of the underlying motivations for being a *famosinho* and hanging out in a *rolézinho*, favela teenagers were going to have their experiences shaped and imposed by those in higher classes and positions of power that didn't recognize *favelados* in "their" spaces and wearing "their" clothes.

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Although João and his friends were not there to protest and call much attention to themselves, their *rolézinho* was still a subtle but significant protest against the different forms of segregation, racism, and discrimination. Their *rolézinho* was a statement of perseverance, since they were seen as they confronted social and racial invisibility. As Silvana mentioned, they intended to remain daring and persistent until they got what they wanted: to just have fun. From the insistence of these acts, anthropologist Teresa Caldeira (2014) claims, we can pass from the discomfort and tension revealed in the *rolézinhos* to a more inclusive and democratic society. We should remember that it was the refusal of Black people to give up their seats to White people on buses and in diners that catalyzed the US-American civil rights movement more than fifty years ago (Caldeira 2014). Daily actions and Mundane Technologies challenge the limits of social segregation and can benefit our society and ultimately reduce inequality and strengthen our democracy. These daily actions often place people (who may or may not think of themselves as activists) at significant risk of physical and institutional harm. For this reason, it is important to emphasize that acts of insistence—like *rolézinhos* to fight discrimination against Black people in Brazil and sit-ins in the US—can generate positive press for protesters and rally others to their causes, pressuring the state and society to change their oppressing ways.

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# 7

# TECHNOLOGY OF THE OPPRESSOR

> David, what is going on in Brazil? How did you guys go from the largest democratic manifestation in Brazil's history [June Journeys], a female progressive president [Dilma Rousseff], hosting the World Cup and the Olympics, to this far-right firebrand [Jair Bolsonaro]?

My friend Matt asked me this question as soon as I returned from a trip to Brazil in July 2018 for follow-up fieldwork. His question, which came from his desire to protest the direction of Brazilian politics, made sense. From his perspective, it seemed that the country was going backward, and I couldn't explain this chain of events with a simple answer. The 2018 presidential election was still ongoing, and Bolsonaro could lose. As I was researching his rise and the disinformation campaign that inundated WhatsApp in Brazil (Nemer 2018b), I was still hopeful that the people would appropriate WhatsApp as their Mundane Technology and reject right-wing authoritarianism. However, that didn't happen; on October 28, 2018, Bolsonaro was elected Brazil's next president.

In this chapter, I shift the focus from the technology of the oppressed to the technology of the oppressor. As Paulo Freire (2000) often claimed, in order to understand oppression we must look at the dialectic relationship between the oppressed and their oppressors. Thus, to better understand how oppression is materialized and amplified through technology, I unpack the set of events that followed the June Journeys, as well as how technology, specifically WhatsApp, was used for disinformation campaigns to help elect a far-right president. It is important to note that the use of WhatsApp cannot be defined as the oppressor's Mundane Technology because Mundane Technology is about the process of appropriating technology for liberation and not oppression. This chapter specifically joins the debate on technology being used not only as tools of oppression (Noble 2019; see Eubanks 2018)

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but also as tools of far-right ideologies (see Berlet and Mason 2015; Lewis 2019). And yes, I finally get to answer Matt's question.

## FROM JUNE JOURNEYS TO THE RISE OF BOLSONARO

The June Journeys were a landmark series of events in the political history of contemporary Brazil. The aftershocks of the protests influenced several other social movements throughout the country until 2017, feeding into the narrative that "the giant has awoken." Scholars are still trying to understand the complex underlying motivations and long-term consequences of the June Journeys for the country. Political figures, journalists, analysts, and scholars have constructed narratives about the events of 2013 with a simplistic cause-effect framing. One of these narratives, which has become (more or less) the official one, asserts that the June Journeys led to the removal of Dilma Rousseff from presidential office in 2016 and is to blame for the rise of the neoconservative wave in Brazil. This narrative promotes the idea that those who protested during the June Journeys were politically aligned with the right (libertarians and conservatives), since President Dilma Rousseff belonged to the leftist Workers' Party (Partido dos Trabalhadores, often referred to as PT). However, as I described in chapter 6, the June Journeys started with college students protesting an increase in transportation fares. It grew into a no-leadership and nonpartisan movement with participants from different social segments and ideologies—even if such participation was limited, as it was among residents of Territory of Good. The pluralism of the 2013 protests was observed not only in Vitória but also in other cities throughout the country (Costa 2019; see Braga 2013; Josué Medeiros 2014; Freitas and Silva 2019).

One of the many lessons of the June Journeys to Brazilians was the affordances of social media in helping organize social movements. Since then, Brazilians have turned to online platforms such as Facebook, Twitter, and WhatsApp to engage in political discussions and organize protests. In 2014, after Brazil's fiasco in the World Cup, the approaching presidential election sparked new motivations for Brazilians to occupy the streets and social media platforms. The tone of the protests was set in the Facebook posts, which mainly discussed the Brazilian recession,[1] the corruption scheme

1. The 2014 Brazilian economic crisis, or the great Brazilian recession, started in mid-2014 and led to a decline in the gross domestic product for two consecutive

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called Petrolão (big oil) that was being investigated by Operation Car Wash,[2] and Dilma Rousseff's government (as she was running for reelection). Compared with 2013, these protests were more polarized, since the participants took sides according to the presidential candidates they were supporting. Dilma Rousseff and Aécio Neves contested the runoff on October 26, 2014, and Dilma won by a narrow margin, 51.6 percent to 48.4 percent. Although Dilma was reelected president, the outcome of the election represented a loss for the progressive camp; the most conservative Congress since 1964, composed of ruralists and evangelicals, was elected (Costa 2019). Unlike in past elections, the opposition did not accept its defeat and questioned the result before the Superior Electoral Court.

In 2015, Operation Car Wash continued to gain support from several sectors of society and the media. The federal police expanded its efforts and moved forward with pressing charges and arresting previous directors of Petrobrás and politicians involved in the corruption scheme, including political figures from Dilma's PT. Due to the involvement of high-profile PT politicians in Petrolão and the aggravation of the country's economic crisis, on March 15 more than one million people took to the streets in more than 152 cities and in every state of the country to protest against the government and show support for Operation Car Wash. The protests were very different from those of June Journeys in 2013. As I observed in Vitória, the protesters were not unified in their demands; they were divided into two groups: supporters and opposers of Dilma's government. The opposers, by far the larger group, protested against corruption and focused on Petrolão and Operation Car Wash. They demanded judicial actions against PT and Dilma's resignation or her impeachment (Gohn 2016). Those who supported Dilma, such as members of worker's unions, insisted on governmental transparency and new political policies, such as better public services and support for the unemployed.

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years. The economy sunk 3.5% in 2015 and 3.3% in 2016. The crisis also generated unemployment, which peaked in March 2017 with a rate of 13.7%, representing 14.2 million unemployed Brazilians.

2. Petrolão, a billion-dollar corruption scheme at Petrobras, a state-owned Brazilian multinational corporation in the petroleum industry, took place during the Lula and Dilma Rousseff governments. The scheme involved accepting bribes from contractors, money laundering, and overpricing work contracted to benefit political parties, state employees, and politicians. The scheme was the target of investigations by the federal police through an operation called Lava Jato (car wash).

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The opposing protests were mainly organized by three groups: Movimento Brasil Livre (MBL) (Free Brazil Movement), Revoltados Online (Online Rebels), and Vem Pra Rua (Come to the Street). They became famous for rallying teenagers and young adults on social media platforms such as YouTube and Facebook. Although they claimed to be nonpartisan, they became known as the "new right," since they defended neoliberal values and their ideals still aligned with traditional right-wing parties. Their nonpartisanship could also be recognized as false since their social media content mainly criticized the left, such as Dilma and PT, and demonized the progressive camp through disinformation campaigns (R. B. R. de Souza 2019; Penteado and Lerner 2018). I define *disinformation* as false information with the intention to mislead. Disinformation is deliberately created and spread as truth to influence public opinion, obscure the truth, and get a reaction that assists its creator. Disinformation is often confused with fake news. However, *fake news* is an umbrella term that covers a range of falsehoods or lies, including misinformation and disinformation. Misinformation is not always intended to mislead; for example, it may be false or inaccurate information that was created by mistake or inadvertently spread. Misinformation can also be true information that misinforms when taken out of context (Nemer 2020).

The organizers of these groups took advantage of the lack of leadership and the partisanship at the protests to hijack them and skew them toward conservative and neoliberal values. The anti–systemic corruption narrative from 2013 was gradually replaced by a moralizing agenda. For example, conservative activists accused PT of propagating gender ideology in schools.[3] This neoconservative reaction attempted to exploit the symbols and names seen in the June Journeys as their own propaganda. For example, the Movimento Brasil Livre referenced the Movimento Passe Livre (Free Pass Movement) and their slogan, often seen as a hashtag, Vem Para Rua (Come to the Street).

Throughout 2015 and 2016, these "new right" groups piggybacked on the economic and political crises to expand their reach on Facebook and create an unsustainable environment of anger and discontent with the federal government. They were the main organizers of the largest protest

3. *Gender ideology*, a term coined by conservative politicians and activists, redefines reforms that benefit women and LGBTQIA people—such as the right to same-sex marriage—as the imposition of a system of beliefs that threatens Christian values and corrupts society.

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in the history of Brazil, bringing more than three million people to the streets on March 13, 2016. I attended the protest in Vitória, and just as I was expecting, most of the participants were White and members of upper classes. I did not see anyone from Territory of Good there; Bia (twenty-seven years old) summarized why later:

> After 2013, everything changed. They are not getting together for a better country; you don't hear them saying anything about public hospitals and schools. They are just there to call Dilma names and demand her to be impeached. . . . Also, they are there to call professors or anyone from the left all kinds of names, from baby eaters to gender ideologist. They are just projecting their hate on the "others." . . . You must have seen all that yesterday [in the protest]. Yeah, the Giant woke up, and we found out that he is male, white, and rich. He doesn't represent us [favela residents].

The same privileged demographic protested in cities such as São Paulo. According to the polling institute Datafolha (2016), 70 percent of the participants belonged to upper classes (A and B), and 77 percent of the participants were White.

In April 2016, I returned to Brazil to do follow-up interviews and follow Dilma's impeachment session. On April 17, the Chamber of Deputies impeached Dilma by a 367-137 vote, finding her guilty of breaking Brazil's budget laws. PT and Dilma's supporters called the impeachment process an institutional coup since, according to them, she did not commit an impeachable offense. The event was marked by the vote of (then deputy) Jair Bolsonaro, who said, "They lost in 1964, they lost now in 2016. For the family, for the innocence of children in the classroom . . . for our freedom, against the São Paulo Forum, for the memory of Colonel Carlos Alberto Brilhante Ustra, the dread of Dilma Rousseff, for the Caxias army, for the Armed Forces, for Brazil above all and for God above everyone, my vote is yes" (Diniz 2016).

Bolsonaro's vote honored the military coup of 1964 and praised Colonel Ustra, who was known to be one of the cruelest torturers of his time. His tortured victims testified that he chopped off fingers and hands and destroyed the dental arch of people who declared themselves against the dictatorship. He also inserted cockroaches in women's vaginas, to show that he was "the dread" (Barros 2019). While many were shocked and disgusted by Bolsonaro's speech, people who were on the streets protesting Dilma either celebrated Bolsonaro's "courage" or just didn't care. That night, I

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saw people rushing to the streets to celebrate the impeachment, popping bottles of champagne, setting off fireworks, and yelling that "Brazil's flag will never be red" (in reference to the traditional color of PT and Communism). Bolsonaro's speech became the basis of his presidential campaign in 2018, which was aligned with far-right ideologies. He often referred to pedophilia conspiracy theories and wanting to save the children, a common theme in far-right conspiracy theories about pedophilia rings, such as QAnon in the US, and inflated nationalism by adopting the slogan "Brazil above all," similar to Nazi Germany's *Deutschland über alles* (Germany above all).

On August 31, 2016, the Senate removed Dilma from office by a 61-20 vote. On the same day, Vice President Michel Temer officially took office, promising to expand austerity measures and reforms to contain Brazil's economic crisis. The debates on Facebook about Dilma Rousseff's impeachment gave us a hint about how the so-called new right was going to rebuild its identity after its unifying enemy (Dilma) was removed from power. Claudio Penteado and Celina Lerner (2018) analyzed several new right Facebook groups and found that most of them were building their identity around conservative values, the armed forces, "law and order," and neoliberal ideals. These groups organized themselves around anti-PT and anti-Communist sentiments, building the notion of us (the good citizens) versus them (PT, progressive camps, Communists, and the corrupt).

As philosopher Jason Stanley (2018) explains, the politics of "us versus them" is a strategy applied by far-right adepts that contrasts a friend with an enemy, growing the public's fear of "them" while using "us" to represent everything virtuous. "'We' are hardworking, and have earned our pride of place by struggle and merit. 'They' are lazy, surviving off the goods we produce by exploiting the generosity of our welfare systems, or employing corrupt institutions, such as labor unions" (xvii–xviii). In Brazil, "they" became known as the *mamata* (cushy job) takers. Using this political technique, new right groups in Brazil paved the way for the rise of far-right politics in 2018. They attacked teachers, professors, and the educational system as a whole, accusing them of coming for "our" children and insinuating that they wanted to implement a so-called gender ideology that would destroy "our" manhood. These groups blamed Paulo Freire for leaving such a legacy in the educational system in Brazil. The politics of "us versus them" set the tone for the hyperpolarized presidential run in 2018 that elected the far-right politician Jair Bolsonaro.

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## FROM FACEBOOK TO WHATSAPP

In 2018, after one and a half years of Michel Temer's government, Brazil's streets may have seemed to calm down, but social media had not. While one of the legacies of the June Journeys for protest organizers was the potential of social media to mobilize participants, the legacy of the 2014–2016 protests for the new right groups was the use of polarizing disinformation campaigns on social media to mobilize people. The approach developed by new right groups such as MBL was adopted by other conservative figures who were planning to run for political office in 2018 and wanted to swell their ranks with new supporters. One such politician was then presidential candidate Jair Bolsonaro, who saw his Facebook page grow exponentially, hitting 5.5 million followers in the beginning of that year, and noticed his posts were each shared over one hundred thousand times. The pages owned by MBL and Vem Pra Rua were also very popular; they had 2.8 million and 2 million followers during the same period, respectively (Machado and Miskolci 2019). The organizers of these accounts were known to spread reactionary and divisive content through coordinated disinformation campaigns. In response to the enthusiasm for these new right groups' disinformation, academics, the press, and politicians started to pressure Facebook to stop the campaigns spreading false rumors. Facebook's unwillingness to efficiently act on misinformation has to do with their definition of success, as Cathy O'Neil (2016) observes in her book *Weapons of Math Destruction*. Facebook simply wants to keep people connected for as long a time as possible so that they click on ads and generate revenue for the company. Facebook's algorithm was never designed to prioritize the truth or settle disagreements.

However, in July 25, to respond to those pressures, Facebook released a statement saying that it had removed 196 pages and 87 profile accounts that were participating "in a coordinated network that was disguised with the use of fake Facebook accounts, and hid the nature and origin of its content from people in order to generate division and spread disinformation" (G1 2018b). Also, Brazil was one of the seventeen countries where Facebook used third-party fact-checkers to attempt to slow down the spread of misinformation. The social media platform also took part in Comprova, a collaborative initiative that gathered twenty-four Brazilian newsrooms to debunk misleading links, videos, and images (Tardáguila, Benevenuto, and Ortellado 2018). Facebook did not reveal who was involved in the coordinated

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disinformation campaign or list the accounts removed. However, on the same day, MBL released its own statement saying that its accounts were arbitrarily removed by Facebook, which was labeling their neoliberal and conservative values as "fake news." MBL accused Facebook of having a leftist bias and not valuing free speech.

Facebook's actions were celebrated by the progressive camp and regarded with caution by candidates and political groups following a similar approach as the new right groups. The repercussions of Facebook's actions seemed to push particularly dirty campaigns to WhatsApp's messaging app, where activity consists of encrypted personal conversations and chat groups. For example, Bolsonaro's election campaign extensively used WhatsApp (P. B. Miller 2013; Tardáguila, Benevenuto, and Ortellado 2018). WhatsApp had been popular in Brazil since it entered the market in 2009. In 2018, there were around 120 million active WhatsApp users in Brazil, out of a total population of 210 million. About 96 percent of Brazilians with access to a smartphone used WhatsApp as one of their main methods of communication (Nemer 2019).

WhatsApp's popularity was driven by its low cost in comparison to SMS texting, which could cost around 55 times the price in North America. Another reason for the app's popularity, as described in chapter 4, was that after Facebook bought WhatsApp for US$19 billion, the company partnered with the telecoms to offer a zero-rating plan that allowed subscribers to use WhatsApp basically for free. WhatsApp also makes it very easy to create group chats and to share content such as videos. The app became a hotbed for political campaigns based on disinformation not only because of its affordances and widespread reach in the country but also because of its end-to-end encryption, which ensured that nobody besides the sender and the receiver could read the content of messages. This made it nearly impossible for WhatsApp analysts to identify disinformation campaigns as Facebook did.

In Territory of Good, as described in chapter 4, WhatsApp became popular at the end of 2014 as residents gained more access to smartphones and *xinglings*. During my follow-up fieldwork in December 2017, Neuza (twenty-seven years old) showed me a short video that she got in a WhatsApp group called "Bolsonaro our president." In the video, Jair Bolsonaro tells Maria do Rosário, PT's congresswoman, "I would never rape you because you don't deserve it." The video had a label saying, "This is how we treat communists."

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Neuza vehemently condemned the video; then I asked her how she got into such a group. She told me that "someone added me to this group chat. . . . There are three people I know on here; that's why I stayed; I thought it was a group chat of friends, but all these other people do is to talk about Bolsonaro. *Nonstop!* They send all kinds of videos and photos about him. It's annoying and I don't know how to leave it [the group]."

Fatima (forty-nine years old) and Regina (thirty-nine years old) also mentioned that the WhatsApp groups they were part of had become spaces to talk about the upcoming 2018 elections with a focus on Bolsonaro. Instead of being added to a group chat, that new people were added to their groups. The new arrivals brought up Bolsonaro, as detailed by Fatima: "These two guys [showing the chat members], who I don't know, entered our church group chat and always talk about politics." With a laugh, she said, "This is a church group, not politics. . . . They go on and on about how socialism is evil . . . but wasn't Jesus Christ a socialist?"

As I was listening to Neuza, Fatima, and Regina describe their WhatsApp chats and groups, I was able to relate to them: the same thing was happening with my own WhatsApp groups. In the group chat of my extended family, I noticed that three cousins were constantly sharing homemade misinformation and pro-Bolsonaro memes and videos. Since I knew they were not the ones creating them, I asked them who made the content. Their answers were always the same: "I don't know. I got it from another group chat" (Giovane, forty-six years old). This intrigued me because most of the political and misinformation content that my cousins were sharing on our WhatsApp group matched what Regina and Neuza were seeing. Since WhatsApp runs on a peer-to-peer architecture, there was no algorithm curating content according to their characteristics or demographics, which is how filter bubbles work on Facebook. Spreading mis- and disinformation on WhatsApp required deliberate human action to create and distribute this content.

A filter bubble is "a state of intellectual or ideological isolation that may result from algorithms feeding us information we agree with, based on our past behaviour and search history" (Fletcher, 2020). It was coined by Eli Pariser (2011). Filter bubbles follow Freire's (2000) concept of *banking model of education*—in this case, online platforms approach people as containers from and into which algorithms must select and deposit information. Therefore, filter bubbles reinforce a lack of critical thinking and knowledge ownership in people using such platforms, which in turn reinforces oppression.

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Facebook creates filter bubbles by using our personal information and online behavior to curate the information that shows up on our feeds. One of the dangers of filter bubbles is that platforms become a hotbed for mis- and disinformation, since its distribution may not break out of the filter bubble at its point of origin (DiFranzo and Gloria-Garcia 2017). Several studies have shown that the spread of mis- and disinformation is more similar to epidemics than real news stories are and that such stories usually stay within the same communities (Jin et al. 2013); that is, mis- and disinformation tends to not reach or convince outsiders. Mis- and disinformation and selective news filtering gained attention from scholars and the general public after they contributed to social media platforms' ideological polarization that favored Donald Trump in the 2016 US presidential election and "Vote Leave" (known as Brexit) in Britain's European Union membership referendum (Spohr 2017; Vaidhyanathan 2018).

## THE RISE OF RIGHT-WING EXTREMISM

If the Brexit vote and Donald Trump's election to the White House were bolstered by Facebook, then the rise of Brazil's far-right firebrand Jair Bolsonaro owes more to WhatsApp. The difference, however, was that Bolsonaro's campaign did not rely on algorithms to create echo chambers.[4] Instead, he assembled a human infrastructure to create a pro-Bolsonaro environment on WhatsApp and spread misinformation to bolster his candidacy.[5] Infrastructures, as anthropologist Brian Larkin defines them, are "built networks that facilitate the flow of goods, people, or ideas and allow for their exchange over space" (2013, 328). While there has been increasing work on social engagements with infrastructures in technological systems, particularly in the Global South (see Dye et al. 2018; Jack, Chen, and Jackson 2017; Nguyen 2016; Sambasivan and Smyth, 2010), here I build on an understanding of infrastructure that goes beyond technological artifacts

4. An echo chamber is what might happen when people are overexposed to news that they like or agree with, potentially distorting their perception of reality because they see too much of one side, not enough of the other, and they start to think perhaps that reality is like this (Fletcher, 2020).

5. Although such human infrastructure worked on disinformation campaigns to favor Jair Bolsonaro, I cannot affirm that they were affiliated with Bolsonaro himself or his political party, Partido Social Liberal (PSL).

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and focuses on humans as central to such networks. To explore the human side of infrastructure, I look to how humans organize to accomplish tasks. I also follow Nithya Sambasivan and Thomas Smyth's concern for "social practices, flows of information and materials, and the creative processes that are engaged in building and maintaining these substrates" (2010, 1).

Bolsonaro became known for his controversial speeches rather than for a robust presidential plan. As I described in the previous section, he celebrated dictatorship, glorified torture, promised to reverse policies that protect the Amazon Region, and threatened Brazil's women, Black, and LGBTQIA people. However, none of his threats had an impact on Bolsonaro's popularity, as his electorate was composed of a loose coalition brought together by the candidate's appeal to "bullets, bibles, and bulls." Bolsonaro ran a campaign based on the idea that his presidency was the only hope to end violence and corruption in Brazil. His supporters called him Mito (Legend or Myth) and expected him to reinstate law and order in the country. Given the hyperpolarization of the elections, Bolsonaro built his rise on people's distrust in politics and wariness of politicians and the political establishments in general. He was a typical charismatic populist. According to Laclau (2005), populists emerge during widespread dissatisfaction and claim to come from outside the system to situate themselves as champions of change. Populists do not necessarily anchor their political messaging in reality; Bolsonaro presented himself as the anti-establishment candidate, even though he had been a member of the Brazilian Congress for twenty-seven years.

Bolsonaro, who has earned comparisons to Donald Trump, was an avid user of social media during his campaign. He constantly participated on WhatsApp groups, recorded Facebook Live videos, and tweeted. Bolsonaro often turned to his social media accounts to spread misinformation and attack his opponent Fernando Haddad (PT). In one of his tweets, Bolsonaro accused Haddad of attempting to implement the so-called gay kit to promote gender ideology in Brazilian schools. Bolsonaro redefined the project called School Without Homophobia, which promoted citizenship and human rights for the LGBTQIA community (Kalil 2020).

Although mis- and disinformation had spread in Brazil across all forms of social media, WhatsApp's impact was the most notable. Due to the app's popularity, about 44 percent of the voting public in Brazil used WhatsApp to discover political information, according to the polling institute Datafolha (G1 2018a). The app's simple design allowed users to easily share text,

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audio notes, images, and videos—which facilitated the spread of misinformation. A study of one hundred thousand WhatsApp images widely shared in Brazil during the election found that more than half contained misleading or blatantly false information (Tardáguila, Benevenuto, and Ortellado 2018). Another study conducted by fact-checking agencies involved in Comprova found that 86 percent of false or misleading content shared on WhatsApp benefited Bolsonaro by attacking his opponent, Fernando Haddad, and his party, PT (I. Macedo 2018).

## THE HUMAN INFRASTRUCTURE OF FAKE NEWS

> More and more, the oppressors are using science and technology as unquestionably powerful instruments for their purpose: the maintenance of the oppressive order through manipulation and repression. The oppressed, as objects, as "things," have no purposes except those their oppressors prescribe for them. (P. Freire 2000, 60)

Given the prevalence of WhatsApp use and the intriguing way that misinformation was spread during the 2018 presidential election, I decided to research who was creating the false content and sharing it with people like Neuza, Fatima, and Regina in the favelas of Vitória. I joined four self-declared pro-Bolsonaro WhatsApp groups via invitation links that were publicly listed in the description of conservative YouTube videos.[6] I began monitoring WhatsApp groups in March 2018 that had an average of 160 members. At the peak of the election cycle, each group was posting an average of one thousand messages per day. In August, after I conducted the first thematic analysis of my data, I identified three clusters of members across the groups: the average Brazilians, the Bolso-army, and the influencers. I found that misinformation was spread in these groups through a pyramid structure, similar to the classic two-step flow of communication model (Katz and Lazarsfeld 1966),[7] in which each cluster of members occupied a level. Influencers were at the top and average Brazilians were at the bottom.

The vast majority of the members fit within the description of the average Brazilian. According to sociologist Esther Solano, Bolsonaro's typical

6. On YouTube, I searched for "Bolsonaro WhatsApp grupo" and looked for videos that had public invitation links. I joined the first four groups that showed up in my search in which the invitation links worked.

7. The two-step flow of communication model hypothesizes that ideas flow from mass media to opinion leaders, and from them to a wider population.

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voter was male, White, and middle class and held a college degree (Moysés 2018). However, on these WhatsApp groups, as I analyzed the members' conversations, I noticed that they were coming from different social classes and were both men and women. They justified their vote for Bolsonaro by sharing their life experiences and difficulties. Before entering the groups, many of them mentioned that they didn't have a strong opinion about the candidate. However, they saw WhatsApp groups as safe spaces where they could learn more about the Mito, verify rumors and news, and obtain digital content to share on other social media accounts and groups. Many of them voted for a different right-wing candidate in the first round of voting and switched to Bolsonaro for the final runoff. One of these people was Carlos, who said in the groups that he "wasn't going to vote in the runoff, but [did] after learning that our country was under an imminent socialist attack." He claimed that he decided to vote for Bolsonaro on the basis of this information—this is what Freire (2000) defines as "adherence to the oppressor," where people, instead of finding liberation, join the oppressor. Bolsonaro's groups functioned as echo chambers maintained by the Bolso-army and influencers. Every time a member posted disinformation—such as poll results or memes about Bolsonaro—members rallied by cheering with the Brazilian flag—a sign of Bolsonaro's new emphasis on Brazilian nationalism—or by posting a specific emoji. The backhand index finger pointing right or left (☞) was Bolsonaro's trademark handgun symbol, referring to his promise to relax gun controls and allow police officers to shoot suspects with impunity.

The Bolso-army was Bolsonaro's loyal fan base and the machinery that stood ready to attack anyone who insulted Bolsonaro on WhatsApp or other social media platforms. They began following him long before his campaign started, because they were in fact part of the administrative team of these WhatsApp groups and kept a vigilant eye out to promptly ban infiltrators or people who dared to challenge anything related to the candidate. In these groups, debate or discussion about Bolsonaro's policies was difficult. I witnessed people get kicked out because they asked questions related to Bolsonaro's refusal to participate in televised debates, his family's mysterious assets, and even his record as a congressman. Every time average users attempted to verify information or ask a question, they were flooded with passionate Bolso-army messages to shut down any doubt about Bolsonaro's legacy. Their arguments were mostly founded in misinformation. The Bolso-army worked tirelessly to impose the "culture of silence" that

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Paulo Freire (2000) warns of, in which the dominated individuals—in this case the average Brazilians—lose the means by which to critically respond to the culture that is oppressively forced on them.

Indeed, the Bolso-army formed the glue that held the human infrastructure together to actively disseminate the misinformation produced by influencers across pro-Bolsonaro WhatsApp groups and other social media platforms. Given their stance, which displayed extreme confidence and left no space for questions, average users felt secure with the information they were given. They recirculated it, helping to spread misinformation even farther.

Influencers had a decisive role in creating mis- and disinformation. There were only four or five influencers per group, and they were not the most outspoken or active participants. They worked backstage to create and share fake news in these groups and to coordinate online and offline protests. They used image- and video-editing software to create convincing and emotionally engaging digital content. They knew how to work content into memes and short texts that went viral. The influencers took advantage of the Bolso-army's loyalty to quickly spread their fake news. They often used affect (satire, irony, and humor) to create their content, creating memes about "Bolsonaro the Oppressor" to ironically show Bolsonaro's human side. They also worked fast to create fake news to delegitimize anybody who criticized Bolsonaro before group members read the news in other venues. For example, Marine Le Pen—the iconic far-right politician from France—stated that "Bolsonaro says extreme things, unpleasant things which are insurmountable in France." Within thirty minutes of this story coming out in a popular Brazilian publication, the influencers posted a meme saying that Le Pen was a Communist. Their strategy was to label everyone who might undermine Bolsonaro a Communist and to discredit mainstream news.

Traditional right-leaning news outlets such as Veja and Estado de São Paulo were actually labeled as socialist venues on pro-Bolsonaro groups. The mis- and disinformation produced in WhatsApp insidiously altered perception, but the absurdity of some stories was even more astonishing. A group of influencers created a flyer alerting their members that Haddad, the candidate from the Workers' Party (PT), would sign an executive order allowing men to have sex with twelve-year-old children. When David Duke endorsed Bolsonaro for thinking like the Ku Klux Klan (KKK), the influencers were quick to produce content depicting the KKK as a product of the left-wing party, to distance Bolsonaro's image from the KKK.

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During the first round of votes they circulated fake videos that showed malfunctioning electronic voting machines to reinforce the idea that the elections were rigged. Influencers also found public videos on YouTube and Facebook that challenged Bolsonaro and posted their links to the WhatsApp groups so the "Bolso-swarm" could descend on them to express their dislike and show support for their legend.

Although these three types of members—the average Brazilians, the Bolso-army, and the influencers—had different roles in the Bolsonarist WhatsApp ecosystem, they had a lot in common. They shared a total disbelief in representative democracy and thought that the system only served those at the top. Despite their celebration and hope for a military intervention, they claimed they didn't want a new dictatorship, per se. Rather, they wanted someone to stop the corruption that had benefited politicians in the left and right and deteriorated Brazil's economy, leaving more than thirteen million people unemployed. This crisis should have been seen as a cry for help. But Bolsonaro was far from being the hero they hoped for.

Called the "tropical Trump" in *Nature* (Tollefson 2018) and the "Brazilian swamp drainer" by the *Wall Street Journal* (WSJ 2018), Bolsonaro was actually part of the corrupt political establishment. Bolsonaro spent twenty-seven years in Congress and didn't do anything to improve the situation of his home state, Rio de Janeiro. He belonged to one of the most corrupt political parties in Brazil (the Progressist Party) for ten years (I. Macedo 2017) and accepted questionable donations (*Vice* 2017). During his 2018 campaign, corporate supporters were accused of leading a "multimillion-dollar 'anti-Workers' party campaign' designed to inundate Brazilian voters with untruths and inventions, by simultaneously firing off hundreds of millions of WhatsApp messages" (Phillips 2018).

What happened during the 2018 presidential election debunked the idea that WhatsApp is a level playing field. WhatsApp's peer-to-peer encrypted architecture may give users a sense of security and privacy, since there is no algorithm intervening in their messages. It may also give them a sense of spontaneity, since the app affords anyone the ability to produce and share content. However, as I described earlier, Bolsonaro's campaign relied on mis- and disinformation that was systematically created and spread by a human infrastructure that orchestrated a guided campaign. Anthropologist Letícia Cesarino (2020) defines this approach as *digital populism*, a term that refers to the digital apparatus, discursive patterns, and political tactics to

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build hegemony. By evoking Ernesto Laclau (2005) and Chantal Mouffe (2005), Cesarino explains that the campaign's discursive patterns operated as a complexity reduction mechanism, drawing a rigid inside-outside group frontier, then producing and stabilizing the "people" through a double syntagmatic ("us versus them") and paradigmatic (charismatic leader-people) approach. It is hard to verify the exact impacts that digital populism had on the 2018 presidential elections. However, given Carlos's account and many like it, in which people felt motivated to get out and vote for Bolsonaro, the human infrastructure behind the disinformation campaign on WhatsApp undeniably helped Bolsonaro become Brazil's next president.

During the few weeks before the runoff vote, many people turned to WhatsApp hoping for a technological intervention to reduce the spread of fake news and the poisoning of Brazilian political life (Tardáguila, Benevenuto, and Ortellado 2018). WhatsApp did not act in time, but the solution to stop Bolsonaro wasn't going to come as a feature on its app. It would have benefited from the lessons of Mundane Technology, in which, as I described in previous chapters, favela residents appropriated technologies of oppression in search of liberation.

## FROM MISINFORMATION TO RADICALIZATION

WhatsApp's assistance to Bolsonaro's campaign became an international story after the election, because the messaging service was revealed to be yet another disruptive social media platform. Similar to Facebook, YouTube, Twitter, and Gab, WhatsApp incubated conspiracy theories and misinformation that helped amplify far-right messages to ideologies across the globe. But after Bolsonaro won the election, interest in WhatsApp faded. As I observed, many members left the groups they had participated in during the campaign. Their main goal had been accomplished; they helped make Bolsonaro president. Although WhatsApp groups were not completely dissolved or emptied, the average of 50 remaining members was far less than the average of 160 members during the elections.

Those who remained on the groups did so for one of the main reasons they joined in the first place: they wanted to stay informed about Bolsonaro's government through WhatsApp because they no longer trusted the mainstream media to deliver the truth. WhatsApp had become their primary source of news. But if before they had united behind Bolsonaro

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during his campaign—serving and thriving off each other—now many of the main WhatsApp groups disagreed on the president's decisions and approach to governance. Bolsonaro's attempts to appease certain planks of his soft coalition of military men—the so-called anti-globalists, social conservatives, and neoliberal elites that pushed him to power—along with his haphazard and unfocused governing style, have left the groups fighting among themselves about his presidency.

My second thematic analysis took place in August 2019, eight months into Bolsonaro's presidency. I found that WhatsApp was still serving as a hidden platform for the radicalization of right-wing Brazilians, even after Bolsonaro's once-united base had splintered into separate (often competing) factions. The four groups I originally monitored had split into a total of ten groups, each of which continued to radicalize largely out of sight of Brazilian regulators, politicians, the media, and even WhatsApp itself (due to its end-to-end encryption, WhatsApp has limited access to the actual content that is spread within the groups it hosts). I put the current groups in three broad coalitions: the propagandists, the social supremacists, and the insurgents.

The propagandist coalition was most similar to the WhatsApp groups that formed before Bolsonaro's election. It was still made up of an assortment of the influencers, ardent supporters, and ordinary Brazilians who propelled him to victory. These groups of supporters had become even more intolerant. Where they once tolerated some debate, they now shut down even mild questioning of the president's actions. But instead of consuming, sharing, and producing fake news about opposing candidates—as they did before the election—their misinformation now mainly focused on government propaganda that worked to delegitimize traditional news venues reporting on government wrongdoings. Their main sources of misinformation were the Secretary of Communications (SeCom), which often engaged in disinformation campaigns on their official Twitter page, and websites sponsored by the SeCom known to fabricate news and spread misinformation (Ricard and Medeiros 2020; Prazeres 2020).

One of the most apparent efforts to discredit traditional news outlets happened in July 2019 during the Amazon fire crisis. The fires were driven by the rapid escalation in deforestation of the rain forest that has occurred under Bolsonaro, a development that has drawn international condemnation. Groups have mobilized against journalists and media outlets who have

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reported on Amazonian destruction. They have even pushed back against government officials like Ricardo Galvão, the former head of Brazil's National Institute for Space Research, who was fired in August after Bolsonaro openly disagreed with his assertion that rain forest destruction was accelerating. One message, for instance, attempted to discredit André Trigueiro, a journalist from Brazil's Globo news outlet: "André Trigueiro keeps saying that Bolsonaro will kill the Amazon. . . . We can't expect anything different from someone who works for Globo Garbage! Communist Press!" "Ricardo Galvão," another message said, "lied about deforestation data, another fake news! We have to stick together for the nation!" Such messages were common and quickly spread to forums like Twitter and Facebook, where the propagandists could directly target journalists and other users with cries of "fake news" and challenges to prove that their reporting was true. Paulo Freire was often a victim of disinformation in those groups. The influencers of the propagandists often shared memes containing photos of girls dancing funk in a classroom or students hitting teachers with the caption "Paulo Freire's Legacy." These online memes were accompanied by protests using phrases such as "Fuck you, communist," and "retarded leftists."

The social supremacists coalition was primarily focused on aligning themselves with the far-right views of the president and members of his government, including his son, Congressman Eduardo Bolsonaro. Bolsonaro and his team used dog-whistle tactics that fired up members of social supremacists' WhatsApp groups. For example, fashwave or vaporwave—the visual style that has become propaganda for the neofascist movement known as the alt-right—was adopted on Twitter by Bolsonaro politicians. Minister of Education Abraham Weintraub, Special Advisor to the Presidency Filipe G. Martins, and Eduardo Bolsonaro all used that visual effect on their profile pictures circulating in those groups. Later, in 2020, Jair Bolsonaro's Secretary of Culture Roberto Alvin published a video statement on the "future of Brazilian art," in which he played Richard Wagner's *Lohengrin* as background music (Wagner's music was used at Nazi rallies and appreciated by Adolf Hitler). He also directly quoted Nazi propagandist Joseph Goebbels to say that the country's art should be heroic, national, emotional, and binding. Another piece of content that was widely celebrated in those groups was the video that the SeCom published about the actions of the government to fight the pandemic, "but at a certain point, the video used an expression that refers to the Nazi inscription, also located

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at the entrance of the Auschwitz concentration camp: 'Arbeit macht frei' ('Work liberates')" (Freelon 2020).

Members of these groups were not interested in the daily political acts of the government. As long as Bolsonaro continued to pursue a socially conservative agenda, they were supportive. They shared content that was pro-gun, racist, anti-LGBTQIA, anti-Semitic, and opposed to Brazil's Northeast. This region, among the poorest and Blackest parts of Brazil, had become a target of the president. Nazi propaganda, pedophilic content, and symbols of the US-American White nationalist movement—including Pepe the Frog—were commonly spread through memes and videos. They also manipulated photos of Brazilian leftists to suggest they were Communists and anti-Christian. But they were not siloed. They often pushed new members to other, more radical channels of discussion, including Dogolachan and 55Chan. Other forums, meanwhile, shared similarities with the US's involuntary celibate movement, where pedophilic, racist, and anti-Semitic content were heavily shared and celebrated. Brazil had already suffered from the growth of these groups. In March 2019, two men who had been active on some of these more fringe forums opened fire at a school in Suzano, Brazil, killing ten people and injuring eleven more. In the aftermath, these groups provided a forum for a response to gun violence that mimicked the way conservative movements and the gun lobby respond to school shootings in the United States.

There has also been a proliferation of radical WhatsApp groups made up of members who once supported Bolsonaro but became his fiercest critics. They believed the president wasn't radical enough. These groups had a strong nationalistic sentiment and believed that Bolsonaro betrayed the nation, primarily because his economic minister sought to privatize or sell Brazil's state-owned companies to foreign investors. They also believed that Bolsonaro didn't keep his promises to cleanse the government of its corrupt political establishment. Although he has appointed more generals to his cabinet than any president elected since Brazil's military dictatorship ended three decades ago, they were angry that he hadn't fully stocked the government with members of the armed forces.

In their view, the only way to save Brazil was to do what Bolsonaro didn't: organize an armed insurgency to completely cleanse the legislative and judicial branches of government's past ills. These insurgents, almost all of whom once belonged to pro-Bolsonaro groups before the election, have

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ironically exposed some of the dirtiest practices that occurred on WhatsApp during the campaign. Many of them have alleged that they were compensated between US$100 and US$250 per week to distribute pro-Bolsonaro content. By revealing this, they implicitly criticized influential groups of businessmen who they said financed the network, and they suggested that virtual militias (known as the Virtual Activist Movement) were paid to infiltrate WhatsApp groups and spread misinformation. They haven't directly implicated Bolsonaro's campaign team, though they have said that at least one person who is currently an adviser in Bolsonaro's government was among those paid to feed fake news to his supporters. These radical groups, too, have made their voices heard outside of WhatsApp. They have driven protests that called on Bolsonaro to shutter the Brazilian Congress, shut down the country's judiciary, and even return to military rule. Such ideas show how radical Brazilian discourse has become under a president who has long celebrated the country's deadly and oppressive military dictatorship.

Although only a small fraction of Brazilians belonged to these groups, and although they were not representative of all Bolsonaro's constituents, the groups revealed ways that people have become radicalized on messaging apps like WhatsApp—which is the complete opposite of Mundane Technology, since radicalization was grounded in misinformation and hate, not liberation. As Google, Facebook, and Twitter have attempted to crack down on violent and potentially dangerous speech, consumers of conservative content have flocked to apps like WhatsApp and Telegram (another messaging service popular in Brazil). They were searching for spaces to find inspiration and become radicalized. In Brazil, Bolsonaro's supporters have turned against ethnic diversity, LGBTQIA tolerance, the practice of Afro-Brazilian religions, and anti-gun politics. Though Bolsonaro has posed his own threats to Brazil's environment, its most marginalized communities, and even its democracy, these groups have embraced his dangerous and anti-democratic tactics.

Daniel Koehler (2016), in his piece on far-right radicalization in Germany, claims there is nothing new to researchers, and even policymakers, about the internet becoming a facilitator of radicalization. However, as Alice Marwick and Benjamin Clancy (2020) point out, studies of digital media as a tool of radicalization have accelerated due to the rise of the alt-right and the election of Donald Trump in the United States, the Brexit vote in the UK, Bolsonaro in Brazil, and Narendra Modi in India. An increase in radicalization also stemmed from social platforms spreading

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extremist propaganda and disinformation (Marwick and Lewis 2017). Most of these studies have been focused on platforms such as YouTube, Facebook, Twitter, and Instagram due to the available data sets and their reliance on algorithms that accelerate radicalization. For example, YouTube's search and recommendation systems have systematically diverted users to far-right and conspiracy channels in Brazil (M. Fisher and Taub 2019; M. H. Ribeiro et al. 2020). Researchers Jonas Kaiser, Adrian Rauchfleisch, and Yasodara Córdova (2020) have also found that after users watched a video about politics or even entertainment, YouTube's recommendations favored Brazilian right-wing, conspiracy-filled channels. Marwick and Clancy (2020) alert us that some studies and op-eds have been using the term *radicalization* without actually providing a model of radicalization. They use the term as a shorthand to convey the extremist nature of the content recommended. Also, due to the emphasis on the recommendation algorithm, scholars have yet to study radicalization on online platforms where algorithms don't intervene, such as WhatsApp.

To argue that WhatsApp radicalized Brazilians, I bring the work of Luke Munn (2019) to help us understand the Bolsonarist WhatsApp ecosystem. Munn argues that radicalization results from exposure to media content over a long period of time. In the case of WhatsApp, time spent actively using the app can be linked to its affordances, which make it simple and easy to consume and share content, as well as the zero-rating plans that offered free data to customers. Also, Munn claims that exposure is affected by the algorithmic recommendations that steadily stream ideologically consistent content to the user. In the Bolsonarist WhatsApp ecosystem, as I described in the previous section, the human infrastructure of fake news took on the role of an algorithm in order to produce, curate, and deliver misinformation and extreme content. Instead of having YouTube's auto-play to recommend the next video, WhatsApp influencers and the Bolso-army coordinated recommendations, turning the radicalization into a stepwise process. As Munn describes, rather than being a major leap, as many assume, radicalization occurs through hundreds or even thousands of micro-nudges over time.

Munn's model claims that online radicalization proceeds in three stages: normalization, acclimation, and dehumanization. In the normalization stage, native internet media such as memes are used (along with a heavy dose of irony). Memes familiarize the user with extremist ideas while allowing them to maintain plausible deniability. For example, the "Bolsonaro the Oppressor" meme acclimated Brazilians to viewing Bolsonaro as a friendly

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figure, while enabling them to deny being interested in more radical topics. Acclimation is the process by which a user is habituated and desensitized to racist or misogynist content, creating a new baseline for acceptability and moving further from the center to the fringe content shared in groups such as the social supremacists. Finally, dehumanization enables the user to see entire groups of people as "them" (the enemy) rather than "us" (humans), be they "communists," "gender ideologists," or "cultural Marxists."

In the absence of an algorithm, the human infrastructure of fake news took a radicalizing role on WhatsApp. So how to break the radicalization process? In Brazil, LGBTQIA-phobic, racist, and other violent hate speech has been criminalized. Thus, law enforcement and courts have to act on behalf of the law. Radicalization can start at an early age, and since online radicalization is new to parents, they should pay attention to what their children are doing on the internet and be ready to engage in what Paulo Freire defined as a problem-posing model. Using this model, parents (teachers) and children (students) engage in a discussion in which both learn from each other's experiences. As Jessie Daniels (2009) proposes, tech companies have continued to deplatform these radicalizing spaces and figures. Deplatforming has worked, such as when Facebook and Twitter banned figures like Milo Yiannopoulos and Alex Jones, limiting their influence. But Yiannopoulos and Jones still have thousands of followers on Telegram. Although WhatsApp can't access the content of messages, it can access metadata and identify whether there's an orchestrated mass-messaging scheme underway. This happened during the 2018 election, as Patrícia Campos Mello (2020) reports in her book *A Máquina do Ódio* (The hate machine). Business supporters of then candidate Jair Bolsonaro funded mass messages against PT's Fernando Haddad. Even though WhatsApp admitted that this tactic violated its terms of use, it did nothing. Though WhatsApp has now made successive changes in response to what happened during the election, it still serves as a unique platform for the spread of dangerous misinformation in Brazil and elsewhere. Radicalization happens at high speed, so combating it requires an even faster response.

## WHY DO BOLSONARO AND THE NEW RIGHT HATE PAULO FREIRE?

Paulo Freire was often a target of hate and fake news within the Bolsonarist WhatsApp ecosystem. However, these critiques were actually reproducing

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what Jair Bolsonaro and his team often said about the educationist. In his article "Why Is the Brazilian Right Afraid of Paulo Freire?" Andrew Woods (2020) mentions that Bolsonaro and his supporters believed that Freire was a deranged revolutionary who deserved to be stripped of his title as Brazil's patron of education. Although these insults and accusations were not unique or novel, Bolsonaro rekindled the hate for Freire as a way to fuel the "us versus them" politics in which "they" (the Communists) had Freire as their mentor. Bolsonaro and his Minister of Education often engaged in disinformation campaigns against Freire, blaming him for Brazil's poor education rankings (Woods 2020). This not only is not true but also shows how they don't understand the work of Freire nor the schools in Brazil. Unfortunately, Freire has never really been implemented in Brazil to the point where he became an integral part of the national education curriculum. In fact, members of the Brazilian right have slandered Freire in this manner for over half a century. In the Bolsonarist WhatsApp ecosystem, Paulo Freire was often described as the father of "cultural Marxism" in Brazil, a movement interested in destroying Christianity. However, Freire was actually a man of faith; he was considered a humanist-Christian educator, and his work was notorious for developing the liberation theology.

The new right groups started a movement called School Without Party, whose founder, Miguel Nagib, once described Freire as the "patron of indoctrination." The groups popularized the idea of getting students to film teachers who are suspected of promoting leftist ideology. Members of the movement hope that Bolsonaro's administration will replace this purported "leftist indoctrination" with a "neutral" education that reinforces traditional moral values. Those who are familiar with *Pedagogy of the Oppressed* know that Freire believed that education was never neutral. For him, education was either a form of emancipatory action or an instrument of domination. In Freire's terms, the Brazilian right wants schools and universities to convert students into "adapted persons" who will conform to existing hierarchies and refrain from questioning the political order. As he wrote in the preface to *Pedagogy of the Oppressed*, the new right groups "want to slow down the historical process, to 'domesticate' time and thus to domesticate men and women" (P. Freire 2000, 38).

By 2019, more people had become interested in Freire's work. According to publisher Paz e Terra (Carvalho 2019), sales of *Pedagogy of the Oppressed* increased by 60 percent in the first half of 2019, compared to 2018. In a

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recent interview, Friere's widow, Ana Maria Freire, quipped that Bolsonaro "is encouraging the sale of Paulo's books!" (Amado 2019). The educational researcher Inny Accioly (2020) claims that "the defense of Freire's legacy has become an enduring symbol for defending the right to education." Despite the Brazilian right's countless attempts to distort his legacy, Freire's life and work will continue to inspire and guide those in their task of liberation—the same way I feel inspired to guide readers in *Technology of the Oppressed*.

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# 8

# TECHNOLOGY OF HOPE

## *Reliving Technology of the Oppressed*

Writing about the technology of the oppressor (chapter 7) was not how I wanted to end this book. I wish that the technology-enabled, antidemocratic turn in Brazil would have never happened, so I didn't have to write about it. Brazil was pushed from its high hopes for the June Journeys into the raw hate of a far-right movement. This turn imperiled the Brazilian democracy, since the elected government actively worked to oppress marginalized groups and further destroy the environment. However, for favela residents struggling and fighting for their place as full humans their whole lives, it was just another day in which they had to bring their spirit, love, resilience, and *luta* (struggle and fight) so they could continue their pursuit of freedom. Favela residents, as I have described them throughout the book, did not despair. They did not despair because they couldn't afford to do so. The system of oppressions they were caught in constantly attempted to reduce their lives to unbearable precarity. Despairing could mean losing their lives. Instead, they remained hopeful—and their act of hopefulness that I focused on in this book was their Mundane Technology.

Mundane Technology was never about the technology per se. Rather, it was about how favela residents brought their hopes to creatively and critically appropriate technologies (artifacts, processes, and spaces) in their journey to free themselves. Mundane Technology was about oppressed humans with hopes for their undeniable right: a dignified life. In *Pedagogy of Hope*, Paulo Freire (2014b) wrote that if we wanted to change society, we ought to keep dreaming. To keep dreaming, we need *to hope*. Hope is an ontological need, because without a minimum of hope we cannot even start the *luta*. Freire warns, however, that attributing hope to the power of transforming reality could trigger a slide into hopelessness, because "as an ontological need, hope needs practice in order to become historical concreteness" (11). That is why Mundane Technology was an act of hope to favela residents; they practiced it in order to find their liberation.

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Paraphrasing Freire, who claimed that "just to hope is to hope in vain," I claim that just to *use* technology is to use technology in vain; if we want to bring change, we must engage with Mundane Technology as the favela residents in this book taught us. As for change, the goal should not just be getting rid of the far-right governments that have recently risen in popularity throughout the world. Bringing back the usual progressive governments would only benefit individuals like me, an upper-class White cisgender man. Instead, we should approach moments of change as an opportunity to confront fundamental oppressions—such as sexism, classism, and racism—that allow extreme and oppressive movements to return.

Hope is also needed to face what Freire calls "limit situations" (2014b, 133)—the obstacles and barriers that we need to overcome throughout our personal and social lives. According to Freire, people endowed with consciousness "take a number of different attitudes toward these 'limit situations.' They may perceive the barriers in question as obstacles that cannot be removed. Or they may perceive them as obstacles they do not wish to remove. Or they may perceive them as obstacles they know exist and need to be broken through. In this last case, they devote themselves to overcoming them" (258). When hope materializes in the form of actions to overcome limit situations, Freire says, these "limit acts" indicate "the defeat and rejection of the *given*, of a docile, passive acceptance of what is 'there,' with the attendant implication of a determinate posture vis-à-vis the world" (259). Mundane Technology can be such a "limit act" to confront "limit situations." As described earlier, favela residents appropriated Facebook Chat and selfies to overcome the oppression of the drug cartel and to overcome social boundaries to occupy spaces that they have never been allowed into, such as shopping malls.

Given that these liberations were never complete, how might we remain constantly hopeful? Is hope a never-ending resource? Freire says no, claiming that he cannot deny "hopelessness as a concrete entity, nor turn a blind eye to the historical, economic, and social reasons that explain that hopelessness" (2014b, 10). Although Freire doesn't provide prescriptions to overcome hopelessness (since he refutes imposed ways of thinking), hoping and dreaming are the way to overcome it. Since hope is an ontological need that must be put into practice through *luta* or Mundane Technology, hopelessness is a distortion of that ontological need: hope that can't seem to be materialized.

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Even though some favela residents told me that they were feeling hopeless at times, their "limit acts"—such as Mundane Technology—showed me the contrary. Just like they couldn't afford to despair, they also refused to remain hopeless. In *Resources of Hope*, Raymond Williams (2016) emphasizes the importance of "making hope practical, rather than despair convincing" in order to achieve social change. In times of far-right governments, it would be easier for someone like me, who is embedded in a system of privileges, to feel hopeless and not engage in "limit acts" to help overcome the current anti-democratic environment. In other words, I can afford such helplessness, since the current social system protects my privileges. To be pacified by privileges—my benefits from a system of injustice—would be to become the oppressor, especially in times when the oppressed become even more vulnerable. Thus, the oppressor becomes jailed in their own oppression and, as Freire (2000) asserted, can't be liberated since liberation happens only when both the oppressor and the oppressed endeavor to restore their humanity together.

Paulo Freire's *Pedagogy of the Oppressed* helped me understand how someone like me can become the oppressor even when I am not deliberately trying to be one. Ever since I completed my first fieldwork in 2012 in Territory of Good, I approached people as humans and not as mere informants. We interacted as dialectic partners, and my "limit acts" would be to materialize hope by amplifying their stories through my writings. This would be my stand against oppression. Thus, as soon as I noticed the rise of Bolsonaro, far-right movements, and the technology of the oppressor, I decided to put forward my "limit act." As I described in chapter 7, I began researching disinformation and the hate machine that was working to benefit Jair Bolsonaro.[1] I was very vocal about the danger of the Bolsonarist WhatsApp ecology and its disinformation campaigns. I went to the media to try to expose the online scheme with hopes I could raise awareness and inform Brazilians about the misinformation deluge that the country was going through. I wrote articles for venues such as the *Guardian*, HuffPost, The Intercept, Salon, *El País*, and UOL and did dozens of interviews with domestic and international news outlets.

As one would expect, I was quickly labeled as part of "them" by Bolsonaro and his new right supporters, since my exposing their disinformation

1. For more information, see Patrícia Campos Mello's book *A Máquina do Ódio* (The hate machine).

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campaigns threatened them. I received several threatening emails saying, "Are you going to continue with this? The warning has been given . . . communist garbage!" and "Shitty communist—you are in the USA, well and safe, but dare to come in Brazil. Hell will break lose." I did not let that intimidate me and continued with my research and exposés. In December 2019, when I traveled to São Paulo for a research meeting, I was followed. Later, I received an email with a photo of me at Ibirapuera Park saying, "We know you are in São Paulo—you better be careful." This threat really affected me. Given the already tense environment, I decided to leave the country immediately. Ever since then and while writing this book, I haven't been able to see family or friends because it has not been safe for me to return to Brazil. I still don't know whether and when that will be possible. I'm not in exile or self-exile—since I was already living in the USA and I had the privilege to just catch a flight and go back home.

But as someone who usually goes back to Brazil twice a year for follow-up fieldwork and to see family, not being able to return has limited my ability to be more present in the country for "limit acts." Such resistance has been increasingly needed, given Jair Bolsonaro's extreme anti-democratic measures against marginalized populations and the environment (see J. Abdalla 2020; Marcelino and Slattery 2020; Pedroso and Reverdosa 2020). As usual, I turned to Paulo Freire's teachings to understand the current moment and to find inspiration for other ways to materialize hope.

In 1964, two weeks after the coup d'état that stripped João Goulart from presidential office, Paulo Freire was arrested due to his National Literacy Program, which was judged by the military dictatorship as "problematizing and politicizing." After spending seventy-five days in jail, Freire was released and went with his family to the Bolivian embassy for exile. They remained in exile from 1964 to 1980, living in Bolivia, Chile, USA (where he lectured at Harvard University), and Switzerland. In an interview with Frei Betto (Gerhardt 1996), Freire said,

> For me, exile was deeply pedagogical. When in exile, I took distance from Brazil, I started to understand myself and to understand the country better. . . . It was by taking distance from what I did, when I took on the provisional context, that I was able to better understand what I did and I was able to better prepare myself to continue doing something outside my context and also prepare myself for an eventual return to Brazil.

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I reflected on Freire's wise words and decided to "continue doing something." I decided to engage in two "limit acts." First, I would keep researching and exposing the technology of the oppressor, and second, I would write this book. I wrote *Technology of the Oppressed* with "rage and love"—the same way that Freire wrote *Pedagogy of Hope*—because that is where hope resides. Thankfully, I was not the only one who continued resisting. Scholars in Brazil and abroad shouldered the burden of resisting Bolsonaro's authoritarian measures and helped hold our democracy together. Brazilians did not sit idly either; several oppressed groups used their Mundane Technology to respond to Bolsonaro and his insistent far-right agenda. Two examples of their Mundane Technology demonstrated "limit acts" that materialized hope in times of uncertainty.

**#EleNão (#NotHim):** The #EleNão (#NotHim) movement mobilized women from the north to the south of Brazil, gathering over a million and a half people on Facebook in the preelection period and stirring tensions between the first and second rounds of the election. The organization held marches throughout the country, and its page was hacked several times by supporters of the then candidate of the PSL party, Jair Bolsonaro. It all began at least two months before the first round of the 2018 general elections, when various groups began to intensely mobilize on the internet around the campaigns of presidential candidates. One of the largest movements began on August 30 with the creation of the Facebook group Mulheres Unidas contra Bolsonaro (Women United against Bolsonaro). They sought to reject the misogynistic, racist, and homophobic declarations made by Bolsonaro throughout his public life (Paiva 2019). In a few days, the group gathered four million women, and the #EleNão hashtag exploded thanks to the political action of these women. A study carried out by the Directory of Public Policy Analysis at the Getulio Vargas Foundation (FGV-DAPP 2018) demonstrated that the #EleNão hashtag was tweeted more than 1.6 million times between September 12, when the first tweets began, and September 24. Around 1.2 million of these tweets criticized Bolsonaro. #EleNão, as a Mundane Technology, was the process that helped women to organize themselves to defend their rights in the face of a reactionary government. Feminist geographer Nathalie Drumond (2019) warns that women should continue to strengthen their ties, protest against sexist violence, and demand the protection of women's rights. The

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key to achieving that goal is to appropriate different Mundane Technologies to lead a broad democratic resistance movement, such as #EleNão, to defeat forms of oppressive government. Mundane Technologies can be part of Fourth Wave Feminism—focused on the empowerment of women, internet tools, and intersectionality.

**Breque dos Apps (Break from the Apps):** In July 2020, Brazil experienced two historic strikes by food delivery drivers who work for digital platforms. Brazil has the world's fifth-largest number of internet users. For a day, many of them directed their attention to the grievances of millions of the country's gig workers. Their hashtag #BrequeDosApps was widely shared on Twitter and got a lot of popular support. Twitter allowed couriers from all over the country to narrate their struggles, telling stories about exhausting days, purchases, and products, all amplified by the COVID-19 pandemic. The strikers' demands included an increase in pay; an end to processes such as scoring systems that led to unfair blocks and dismissals on the platform; theft and accident insurance; and the provision of personal protective equipment (PPE) (Grohmann 2020).

During the strikes, the Anti-Fascist Couriers movement, led by Paulo Galo, rose to prominence through Twitter and legacy media. Quotes like "We are not entrepreneurs" and "You are not middle class, you are working class" dominated the public debate before, during, and after the strikes. Breque dos Apps put a collective brake on the Uberization control method, which had deepened the degradation and exploitation of work. In WhatsApp groups, couriers reported alleged changes in the Rappi app's ranking and scoring model, which had been one of the strikers' demands. After the strikes and show of popular support, several politicians took on the task of drafting elaborate bills to address some of the strikers' demands, such as forcing the contracting companies (apps) to provide delivery professionals with PPE and insurance against accidents, theft, and contagious diseases. These bills are still to be voted on.

Couriers have also organized themselves in their own Mundane Technology outside the delivery apps. For example, in Rio de Janeiro, fifteen couriers formed a cooperative called Despatronados (Without a Boss); their website connects customers directly with a courier via WhatsApp—without intermediaries and having to pay commissions or fees to delivery platforms. In times of neoliberal policies and job precarity, the Breque dos Apps movement teaches how workers can appropriate technologies that

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are exploiting them in order to fight for better working conditions. It also shows how a Mundane Technology can promote cooperativism and create space for fair work.

★ ★ ★

If we are to think about developing equitable technologies for a more just society, we should not expect the oppressed to always engage with their *luta* (struggle and fight). We should not demand they appropriate digital artifacts, spaces, and processes in order to find liberation. They already face all sorts of oppressions, which are amplified through technologies. Digital technologies can not only set them back but also make their path toward freedom extremely difficult. Following Freire's warning, if technology designers insist on imposing their own decisions on how technology should be prescribed and used, their technologies will never be about liberation or empowerment—they will cause even more oppression. Thus, to promote liberating and equitable technology, we should bring the concept of Mundane Technology to the roots of technological developments. The oppressed should be part of the decision-making process that will design the technologies of the future. Only then might we promote hope instead of oppression.

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# APPENDIX: METHODOLOGY

This book is based on an ethnographic study of the uses of technology in the favelas of Vitória, Brazil. Ethnography is not only a rigorous methodology but also an *episteme*, as defined by anthropologist David Hakken (1999): it is a way of knowing, and hence it is well suited to documenting social and cultural practices. It provides a descriptive narrative of what happens in the field, as well as an analytic or a theoretical approach to the people studied. Ethnography gives an understanding of the relationship between power and thinking presented thoroughly through the principles of thick description (Carspecken 2013). Thick description aims to explain not only human behavior but also its context, such that the human behavior becomes meaningful to outsiders. It is important to highlight that thick descriptions, as explained by Clifford Geertz (1973), are anthropological writings that are themselves interpretations, "and second and third order ones to boot. (By definition, only a 'native' makes first order ones: it's *his* [or *her*] culture.) They are, thus, fictions; fictions, in the sense that they are 'something made,' 'something fashioned'—the original meaning of *fictiō*—not that they are false, unfactual, or merely 'as if' thought experiments" (15).

Due to the nature and context of where this ethnography took place—in marginalized favelas of Brazil—this research appropriates the tone and ethical responsibility found in a specific group within ethnography, which is called *critical ethnography* (see Carspecken 2013; Madison 2012; N. K. Denzin 2001; Gordon, Holland, and Lahelma 2001). Critical ethnography is grounded in critical theories that assume that society is structured by class and status, among others, that maintain the oppression of marginalized groups. It has the ethical responsibility to address processes of unfairness or injustice, such as the ones lived by favela residents, and to uncover the hidden texts and experiences of the oppressed. Critical ethnography is conventional ethnography with a political purpose (Thomas 1993)—the political purpose of empowering, mobilizing, building recognition within, and

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helping focus the action of the people who are politically marginalized. It uses the same methods, such as interviews, observations, field notes, surveys, and focus groups, and it can create opportunities, through in-depth interviews with participants, for intervention in creating awareness and demanding change (Gordon, Holland, and Lahelma 2001). Conducting ethnography through the lens of critical ethnography guided me to always put the favela residents at the center of the research and to posit that people themselves define what lives they value, which resulted in a plurality of views. Such an approach allowed me to situate favela residents' technology appropriation and use in their daily lives within rich sociotechnical dynamics that played out in the Community Technology Centers (CTCs). It also pushed me to conduct the research with a sense and commitment based on principles of human freedom and well-being and, hence, a compassion for the oppressed.

Putting favela residents in the center and focusing on their experience with technology fit well with the theoretical framework of this book, which avoids overly quantitative approaches since they risk treating people and cultures as abstract concepts and statistical figures (Escobar 1995). This book was framed in a development paradigm that sought to go beyond economic growth and required an in-depth comprehension of the everyday life of the favela residents.

In this appendix, I present in detail how and when the ethnography was conducted in the favelas of Vitória. I lay out the methods for data collection and analysis. As Noblit, Flores, and Murillo (2004, 3) suggest, "critical ethnographers must explicitly consider how their own acts of studying and representing people and situations are acts of domination even as critical ethnographers reveal the same in what they study." In addition, I avoided calling the people that participated in this study "my informants" or "my subjects," instead addressing them as "the informants" or "the subjects." This way, as Linda Tuhiwai Smith (2012) suggests, the researcher respects the people as thinking individuals by not claiming ownership of their ways of knowing, their imagery, and the things they create.

## FIELDWORK PHASES

The ethnography took place in online and offline spaces and in different phases. For the in-person (offline) fieldwork, there were two main phases: phase 1 from June to July 2012, and phase 2 from April to October 2013. I also conducted several in-person follow-up observations and interviews:

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August 2014; May, August, October, and November 2015; March, April, and December 2016; November 2017 through January 2018; July and December 2018; June through July, and December 2019. For the online portion of this study, I began doing observations on Orkut from June 2012 to February 2014 and on Facebook from May 2013 to December 2019—I also conducted follow-up interviews on Facebook from October 2014 to December 2019.

In phase 1, I conducted an ethnographic exploratory study of the field with the intent of understanding the problem space of digital inequalities and inclusion in Vitória and Brazil. According to Shields and Rangarajan (2013), exploratory studies are conducted for a problem in a preliminary stage that has not been clearly defined. They often occur before the researcher knows enough to make conceptual distinctions or posit an explanatory relationship. Exploratory studies seek "to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to learn 'what is going on here?' and to investigate social phenomena without explicit expectations" (Schutt 2018, 11). Thus, my exploratory study helped me to gain access to the favelas, get familiar with the social practices there, analyze and select CTCs, and start conversations with LAN House owners, Telecenter employees, and politicians. The preliminary findings from phase 1 helped design phase 2 by shaping the research questions of this study, determining the methods for data collection, and defining the specific field to be studied.

In phase 2, I focused on the critical ethnographic study of the Territory of Good. All of the respondents from phase 1 were revisited in phase 2. During the research no new policies or laws related to digital inclusion and the CTCs were enacted. The main technological differences I observed between phases 1 and 2 were the increased adoption of Facebook and smartphones/*xinglings* in phase 2. In phase 1, on the basis of my observations and conversations with CTC users, no one had a Facebook account: "Face what? I don't know what you are talking about. I use Orkut" (Gabriela, twenty-nine years old).

Different from the unfamiliarity with Facebook, the people knew about smartphones but could not afford to purchase them, and they did not feel motivated to buy one since cell phone coverage in the favelas was not good, as mentioned by Paulo (thirty-five years old): "It [smartphone] is too expensive. Why would I spend all of my savings on it? I won't be able to use it anyways . . . can't get any [signal] bars here [São Benedito]."

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Although smartphones were present in the CTCs during phase 2, the residents still faced the same issues with infrastructure and cell phone coverage. Follow-up observations were made with visits to Territory of Good, specific areas of Vitória, and other cities in Brazil, such as São Paulo and Rio de Janeiro; the follow-up interviews were made with residents that I had already interviewed in phases 1 and 2.

## DATA COLLECTION

In this research, data counted as any representation of the favela residents' experiences with technology: from the struggle of living in violent and marginalized favelas to their use of social media. Data was based on my own notes and logs, as well as surveys, photographs, public records, and government documents. In the following, I detail each method of data collection.

Collecting data was not an easy task for me in the favelas. Someone walking around with a notebook and a pen was something that favela residents were not used to seeing in their everyday life. In order to gain their trust and get their insights I had to first start *hanging out* every day in the favelas without any tools of data collection, engage in chitchats and small talk, and most importantly, exchange personal information and experiences. This way, the residents did not feel that I was using them as "information repositories" but rather that I cared about them as human beings and about their issues. In addition, as an ethnographer, I had the responsibility to explain my presence in people's lives (Madison 2012); hence, before any first contact, I presented myself and explained what I was doing there and why, the goals of the study, and potential benefits and risks to the informants.

The favela residents appreciated my openness and slowly became used to my presence there, as mentioned by Gabriel (seventeen years old): "You are like one of us because you care about our situation. . . . Actually, your attitude is better than the attitude of some here because you care and you try to help. You will always be welcome here. You are easy to talk to. . . . You listen to everyone and make us feel good. This is a rare thing to find in people nowadays."

After the first three weeks of fieldwork (phase 2), I thought it was appropriate to bring my notebook and pen to the field since people were aware of who I was and comfortable with my research. Although I was not carrying any documentation tools during the first three weeks, I was still writing a summary of my days in the favelas when I returned home at the end of the day.

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Once I started collecting data in the field by visiting the CTCs, I used a wide variety of methods, detailed in the following, to assure rigor and trustworthiness in the data gathered. This approach allowed for a systematic analysis by triangulation of the results from the different research methods. Triangulation involved bringing my notes, interviews, photographs, and documents together to produce understanding and to corroborate different sets of findings. It allowed for thick descriptions, enriched data, and the examination of a phenomenon from more than one perspective (N. Denzin and Lincoln 2011). From the beginning, the richness of the data collected could have taken an uncountable number of different leads and hence had to be continually balanced with the notion of "optimal ignorance" (Chambers 1993).[1]

Most of my interactions with the people in the CTCs happened in front of a computer. As a way to gain their trust and return the favor of sharing their life experiences with me, I instructed them on how to use the computer, smartphones/*xingling*, and other applications. However, their sharing information was not a condition for me to help them. I approached them by bringing examples and cases related to their context. As suggested by Freire (2000), people are more motivated to learn when they study subjects that relate to their everyday life experiences.

## PRIMARY DATA

The ethnographic methods used to collect the primary data for this research were participant observation, semi-structured interviews, and focus groups at the CTCs. For this book, I used the collected data to tell the stories of specific people from the favelas, and I also compiled these data into composite characters and spaces to preserve an informant's identity while still capturing the essence emerging from the research.

### PARTICIPANT OBSERVATION

Participant observation took place mainly inside the CTCs, but I also conducted the method in places outside the centers, such as streets, public places, shops, Inclusion Agents' monthly meetings, and homes of residents—all

1. According to Chambers (1993), optimal ignorance means getting only the information that is really needed.

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located inside the favelas. For me, participant observation in the sense of an in-depth ethnographic approach (Geertz 1973) meant playing computer games or PlayStation with the teenagers, drinking a *cafézinho* (small coffee) with a local resident, eating *bolo de fubá* (cornmeal cake) at a family's house, and helping the CTC users with their questions related to technology use and the internet.

During both phases of the in-person fieldwork, I visited Territory of Good five to six days a week, basing my schedule on the specific CTCs of my research: Telecenters that did not open during the weekends and the LAN Houses that were closed on Sundays. I visited one to two centers per day, and then changed CTCs in the following week. This weekly CTC swap happened until the end of the fieldwork; this way I optimized the time in each CTC, which allowed me to see, for example, the same people in different CTCs and people using CTCs for different purposes in different times of the day. According to Laila (twenty-nine years old), "When I have to do something quickly, I come here [Gueto LAN House] because it is right next to my house . . . specially in the mornings, because I have to return home and fix lunch for my children. But in the afternoons, when my children are at school and I have more free time, I go to the Telecenter."

I was visiting Territory of Good on some weekends. During participant observation I wrote down my observations in my notebook, and at the end of the day, I typed my considerations and reflections in English on my personal laptop; after I was done, I safely discarded my physical notes. As Flick (2006) proposes, field notes and reflections can be perceived as memos in the sense of grounded theory; they gave me an idea of emerging findings and codes as I was conducting my fieldwork, such as people's Facebook use and struggle with using the keyboard, which guided my investigation in these specific emerging findings/codes.

## INTERVIEWS

I interviewed a total of ninety-four people. The interviews were conducted in Portuguese and lasted between thirty-five and sixty minutes per interview. Some interviews were recorded, and in others I just took notes. Before interviewing each person, I handed over a written consent, which explained what the interview was for, how the information provided by them was going to be used, and their right to refuse to be interviewed. To protect the favela residents' anonymity and avoid exposing them to any

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risk, I changed their names to common Brazilian names, provided only minimal personal information, such as gender and age, and compiled some of their data into composite characters. None of the people I approached refused or were reluctant to participate in the interviews.

I also had informal and small conversations with favela residents, inside and outside CTCs, most of the time during the participant observation. These conversations were an efficient way to quickly cross-check information gathered during the interviews and to keep me engaged with the people.

### AUDIO RECORDING

The interviews were audio recorded and every interviewee was offered confidentiality and provided informed consent. The interviews in phase 1 were recorded using my personal phone, Nokia E51, which did not perform the task well. The recordings were faulty and breaking up, which required extra time and effort to transcribe them. For this reason, I purchased a voice recorder for phase 2 of this study. In phase 2, the first twenty-one interviews were conducted with CTC users and recorded using a Tascam DR-05 audio recorder; with the remaining interviews in the favelas I used Google Glass. The individuals whom I interviewed using Google Glass actually appreciated me wearing the device. Those who experienced both devices, Glass and Tascam, in their interviews and follow-up interviews preferred to be interviewed with Google Glass since the interviewee was constantly noticing the recording tool, as mentioned by Geraldo (thirty-nine years old): "I can see this thing [Google Glass] on your face all the time and I know you are recording me. I remember the first time you interviewed me with that weird recorder [Tascam DR-05], you left it on the table and during our conversation, I forgot it was there recording us."

Before the interviews, the recording tool, either Glass or Tascam, was presented and demonstrated to the interviewees so they could have a fair understanding of the tools and their functionalities. As I described before, they did not find the Glass invasive since, before using it, I would inform everyone in the room what I was doing with it; in other words, I was avoiding being a *Glasshole*. I transcribed and translated to English the interviews at the same time on my laptop. After I was done, I erased the audio files. Due to my instant translation of the interviews, I transcribed them following the denaturalism mode. In this mode, unwanted elements of speech (e.g., stutters, pauses, nonverbals, involuntary vocalizations) are removed,

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as well as some slang and local expressions. Although this mode may seem disadvantageous, denaturalized transcripts still suggest that within speech are meanings and perceptions that construct our reality (Cameron 2001).

### FOCUS GROUPS

During phase 2 of the fieldwork, two focus groups were conducted with CTC users to put before them some preliminary findings and to discuss their experience with technology. The focus groups took place in the last month of the fieldwork and were hosted in the Telecenter of Itararé and Games LAN House. Four people, two males and two females, formed each group, and they were asked reflexive questions as suggested by Seidman (2013). This approach was intended to promote a friendly conversation about their opinions and experiences of how technology affected their lives. I moderated each meeting, which lasted about sixty minutes, and recorded the audio.

In the focus groups, I reserved the first twenty minutes to ask the participants questions that I had not asked during the conversations and interviews:

- What could be improved in the CTC?
- What would you do if the CTC closed down?
- How does the CTC help you and the community?

In the remaining forty minutes I conducted a discussion about the computer keyboard, which I discuss in detail in chapter 5. I selected this topic because I observed that CTC users were struggling with the QWERTY keyboard and they found it frustrating and upsetting, as mentioned by Carla (forty-one years old): "I'm trying to learn how to use this thing [computer] but it doesn't make sense; I waste so much time to write [type] something because I can't find the right letters [keys]. It gets in the way of learning this thing [computer]; I feel angry and unmotivated. But that's okay because when I find the damn letter [key] I don't push it, I punch it!"

The focus group allowed me to deeply understand their complaints and ideas regarding the keyboard. During the meetings, I observed that users were discouraged to make improvements not because of lack of will but because of lack of technological expertise and because of the rhetoric behind the "untouchable perfect Western" technology, which did not allow them to deconstruct the "black box"—keyboard. When I asked about how they would improve the keyboard, answers reflected this sense of powerlessness and voicelessness: "We can't change this keyboard; it came like this; there's

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nothing we can do; we are not capable or [do not] have the power to change this" (Lourdes, thirty-one years old).

After I explained the possibilities of a potential change, we engaged in an activity in which we tried to design an alternative keyboard that would be easier for them to use. This meant drawing the alternative keyboard on a piece of paper and discussing changes. They proposed a keyboard with letters in alphabetical order and numbers following the layout of a telephone dial pad.

## FIELD NOTES

I took handwritten field notes in both phases of the fieldwork. Lofland and Lofland (1995) highlight the importance of field notes since they allow the researcher to recall the extraordinarily complex range of stimuli with which he or she has been bombarded. The notes were mostly information about participant observations, focus groups, reflections of the field, questions for clarification, preliminary analysis, drawings, and sporadic conversations. During the interviews I also took supplementing notes related to the individual's reactions to questions or comments, body communication, or any event perceived as relevant that could not be documented by the audio recorder or camera. Although my communication with people was in Portuguese, my field notes were not all in the same language. As I was living in the USA and was used to writing, thinking, and using academic terms in English, my notes were in *Portuglish*—an unsystematic mixture of Portuguese with English (Casanova 2012).[2] Portuglish provided me with a convenient and faster way to write down my notes since I had two languages at my disposal and could pick the term that best described an event. I transcribed my notes in English on my laptop, and after I was done I safely discarded the physical notes.

## SECONDARY DATA

Secondary data were collected from various sources as a way to supplement primary data. The sources were Facebook, surveys, photographs, and government documents.

2. Portuglish is spoken in Portuguese and Brazilian communities in California, in Hawaii, and in the region between Fall River and New Bedford in Southeastern Massachusetts (Casanova, 2012).

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### FACEBOOK, ORKUT, AND WHATSAPP

I did observations on Orkut from June 2012 to February 2014 and on Facebook from May 2013 to December 2019 continuously. On Orkut, I was mainly interested in observing online communities, especially those that targeted favela residents; thus I was visiting the platform every four days for thirty minutes each visit. I did not use Orkut to friend anyone for research purposes. As for Facebook, I began using it in phase 2 to strengthen my relationship with the favela residents and to gain their trust by becoming their friends on the Social Network Site (SNS). My Facebook profile was used mostly to give me an online presence and connection with residents of Territory of Good. I also used Facebook to check whether people were using the SNS in the same way they had told me they were during the interviews. During phase 2, my interaction with—and observation of—favela residents on the SNS was very short, about forty-five minutes a day. This was because they mostly used the chat function on Facebook, which is private, and I could not see what was going on through my account. Hence, the amount of data extracted from the SNS itself was small, compared to the other sources. Facebook became a more important platform to interact with the people after I left the field at the end of phase 2. I was still visiting the SNS every three days and spending about one hour. My main goal was to do follow-up interviews on its chat.

In phase 2, during my interactions with the users in the CTCs, they asked for my last name so they could friend me on Facebook. Once, I questioned them: "What if I don't have a Facebook account?" Their reaction was of disbelief and disapproval: "Are you crazy? I don't believe you! You should get a Face [Facebook] so I can give you a *salve* (hello)!" (Mariana, sixteen years old).

Amid phase 2, the SNS became an inevitable tool not only to provide a channel to interact with favela residents but also to create trust and stronger ties. "Nowadays you have to have a Face to connect to people on and offline. No one asks for your phone number anymore; they all want to know if you have a Face" (Jose, fifteen years old).

According to Friend (2013), becoming friends with research informants on Facebook enhances the ethnographer's ability to build a stronger network of participants and gain their trust. Hence, I created a new Facebook account exclusively for this study and became "friends" with the CTCs' users. During my daily forty-five minutes on Facebook, I posted messages such as "Have a good morning/afternoon everyone" and uploaded photos of CTC users

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and me, as well as of the favelas, on my timeline. I attempted to show to my friends on Facebook my appreciation of being there and how much I enjoyed hanging out with them at CTCs as well as in the streets of the favelas.

Facebook also made the process of leaving the field smoother, since I was able to keep a connection with favela residents. Ethnographers usually have a hard time "getting out" due to reasons of attachment to the people and not being sure if they have the necessary data (Iversen 2009). The SNS provided a channel to ask questions or collect data remotely, since I could reach favela residents on Facebook. In addition, Facebook was a useful channel to keep the people aware of the progress of this research, its accomplishments, and plans. As an ethnographer, it is my responsibility to keep favela residents as informed as possible about the study (Madison, 2012). Facebook became a very important tool in November 2013 as it provided me with a space to observe and chat with João and his fans about the *rolézinhos* and the violence that they suffered.

As for WhatsApp, I joined four self-declared pro-Bolsonaro public WhatsApp groups via invitation links that were publicly listed in the descriptions of conservative YouTube videos.[3] I began monitoring WhatsApp groups in March 2018, which had an average of 160 members. At the peak of the election cycle, each group was posting an average of one thousand messages per day. In 2019, the four groups I originally monitored split into a total of ten groups, which I joined. The invitation links were published publicly in the original four groups and, again, on YouTube videos. I visited these groups every day for one to two hours.

### GOVERNMENT DOCUMENTS

Throughout this research, I collected and reviewed relevant government publications, laws, policies, decrees, and bills. The documents did not go through a systematic analysis, but their content was used in order to understand the ways that Brazil and the city of Vitória were approaching digital inequalities. In addition, they were analyzed so their discrepancies and disconnects with what was happening in the field could be used to propose policy improvements.

3. On YouTube, I searched for "Bolsonaro WhatsApp grupo" and looked for videos that had public invitation links. I joined the first four groups that showed up in my search in which the invitation links worked.

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The documents I collected were aimed at promoting the availability of physical technologies, such as computers, and telecommunication infrastructure, like the internet, Telecenters, and LAN Houses. The documents gathered were

12.737/2012
PLC 35/2012
PLC 28/2011
Decreto Nº 7.175, de 12 de maio de 2010
Decreto Nº 6.948, de 25 de agosto de 2009
Decreto Nº 6.424, de 4 de abril de 2008
Portaria Nº 13, de 1º de outubro de 2012
Portaria Nº 16, de 1º de novembro de 2012
Portaria nº 520, de 27 de dezembro de 2012
Portaria Nº 13, de 1º de fevereiro de 2013
PL No. 4.361, de 2004
LEI 8.248/1991
LEI 8.666/1993
LEI 9998/2000
LEI 11.012/2004
LEI 10.973/2004
LEI 11.196/2005
LEI 12.249/2010
LEI 3.437/2004
LEI 4.782/2006
LEI 6,991/2009

They were available at online portals such as http://www4.planalto.gov.br/legislacao for federal documents and http://sistemas.vitoria.es.gov.br/webleis/ for city documents. These two online portals organized and categorized the documents by their content, such as technology, which facilitated my search. I also used the websites' search engines to find documents that were not in the category of technology; the keywords I searched on were *tecnologia*, *mídia*, and *inclusão digital*.

## DATA ANALYSIS

I analyzed the content of and was informed by field notes, government documents, interviews, and focus groups' transcripts. MaxQDA, a computer-

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assisted qualitative data analysis software, was used for part of the data analysis, which aided me in visualizing and organizing the data. I chose MaxQDA for its affinity to grounded theory, and its features allow working close to the text. My own methodological approach and the setup of the study with its trajectory from inductive and exploratory to more deductive and problem-focused research were similar to grounded theory. Hence, staying close to the text was essential to support the exploratory approach. The software was intuitive and easy to use; it allowed me to code my data as I was transcribing it. Also, its search function helped me make sure that I had every piece of text related to a given theme—for example, Facebook—under the code assigned to it. Such activity would have been time-consuming and tedious if I had done it by hand.

The data collected on WhatsApp were exported and stored on Excel spreadsheets. The phone number associated with each account was immediately replaced by unique codes before any analysis was done. Two thematic analyses were done using WhatsApp data, and after each analysis the data and spreadsheets were deleted.

## TRIANGULATION

Triangulation supports findings by showing that at least three independent measures agree with them or at least do not contradict them (Miles, Huberman, and Saldaña 2014). Following Denzin's (2001) recommendations, this research triangulated primary and secondary data sources, theories, and methods. In this study, triangulation was used for getting to the finding in the first place, looking at multiple instances of it from difference sources, and "squaring the finding with others it needs to be squared with" (Miles, Huberman, and Saldaña 2014, 300).

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